AVerMedia®

Central Management System

User Manual

Version 7.7

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Manual Conventions

The following conventions are used throughout this manual.

The caution symbol is intended to alert the user of the importance of the particular installation and operating instructions. Failure to comply may damage the system.

The information symbol is intended to provide additional information for the purpose of clarification.

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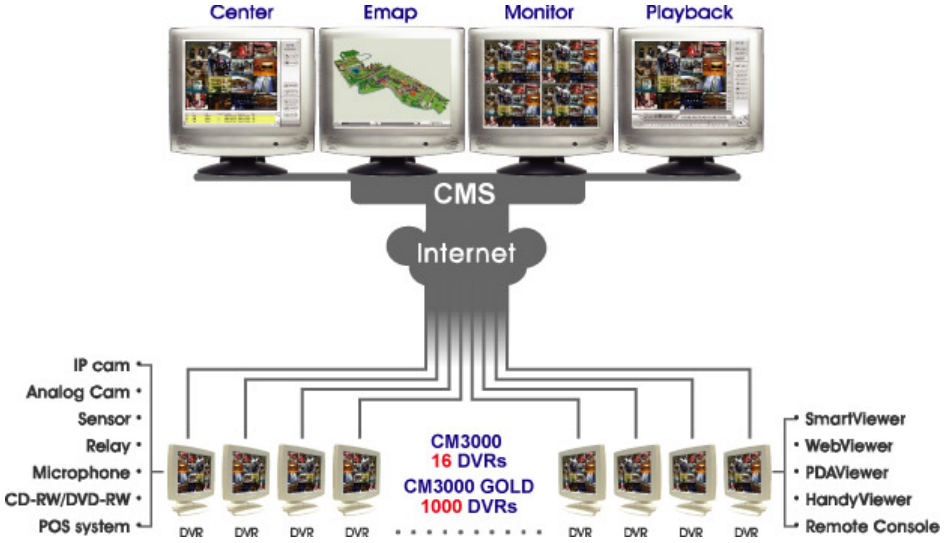
Chapter 1 Introduction

The AVerMedia® CM3000 is a central monitoring system that enables user to monitor up to 1000 DVR servers (see also Chapter 1.1 for updating to **GOLD** version) through an internet connection. Like the DVR program, the CMS system also automatically records and displays video when an event has occurred on the remote side of the DVR server. You can also playback video files locally or download from a remote DVR server.



The CMS system Supports Single, Dual, Triple and Four monitor displays. User can operate the CMS system application on different monitors.

1.1 Upgrading to CMS GOLD Version

The CMS can be upgraded by installing a USB software License (USB Dongle). After installed the USB dongle, CMS can monitor up to 1000 remote DVR servers. The USB dongle provides three type of license for customer choice:

1 ~ 64 Clients(DVR) **65 ~ 150 Clients(DVR)** **151 ~ 1000 Clients(DVR)**

Without install a USB dongle, CMS only can monitor 16 DVR and some functions are not available.

Please follow the below steps to upgrade the CMS.

1. Run the CMS application.
2. Plug in USB Dongle to your CMS server.
3. The CMS system will detect it automatically and the driver installation dialog will pop up. Click **OK** to install the driver.
4. If user chooses to install driver later, then un-plug the USB dongle and plug in again later for installing.
5. After installation completed, the CMS system will restart automatically.
6. **DO NOT** un-plug the USB Dongle while the DVR application is operating, it may cause the application crash abnormally.

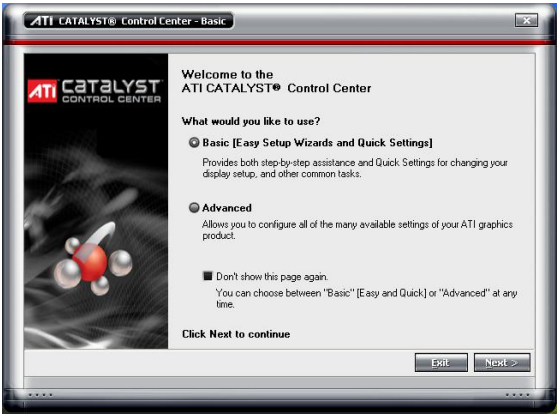
1.2 Dual Monitors setting

Video configuration is different for each different VGA chipsets. Please follow the steps below to setup the dual monitors display.

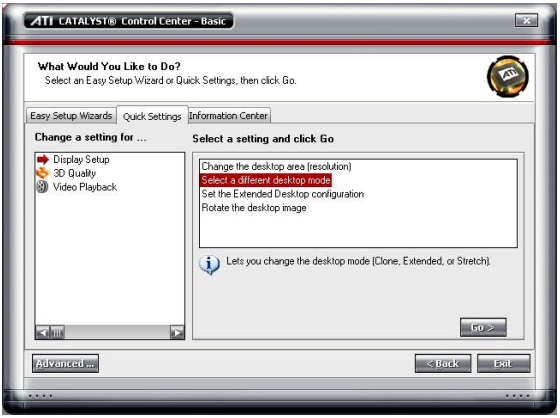
1.2.1 Graphic card with ATi chipset

1. Enter the ATI Catalyst Control Center, user can click the short-cut or right click on the screen.

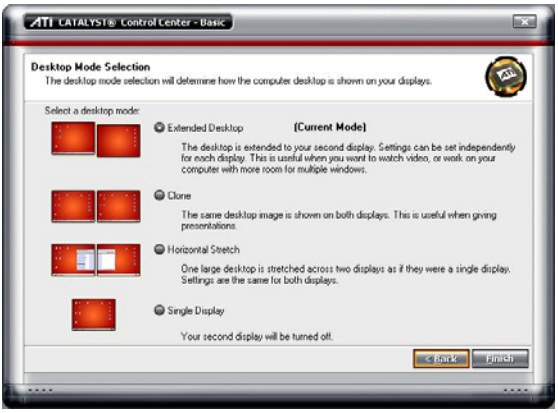
2. There are two modes to select ─ Basic and Advanced.


ATI CATALYST® Control Center - Basic
Welcome to the
ATI CATALYST® Control Center
What would you like to use?
Basic [Easy Setup Wizards and Quick Settings]
Provides both step-by-step assistance and Quick Settings for changing your display setup, and other common tasks.
Advanced
Allows you to configure all of the many available settings of your ATI graphics product.
Don't show this page again.
You can choose between "Basic" [Easy and Quick] or "Advanced" at any time.
Click Next to continue
Exit
Next >

3. If user selected Basic mode, press the **Quick Settings** tab. Then select the **Select a different desktop mode** and click **Go**.


ATI CATALYST® Control Center - Basic
What Would You Like to Do?
Select an Easy Setup Wizard or Quick Settings, then click Go.
Easy Setup Wizards
Quick Settings
Information Center
Change a setting for ...
Select a setting and click Go
Display Setup
3D Quality
Video Playback
Change the desktop area (resolution)
Select a different desktop mode
Set the Extended Desktop configuration
Rotate the desktop image
Lets you change the desktop mode (Clone, Extended, or Stretch).
Go >
Advanced ...
< Back
Exit

4. Select the **Extended Desktop** and then click **Finish**.

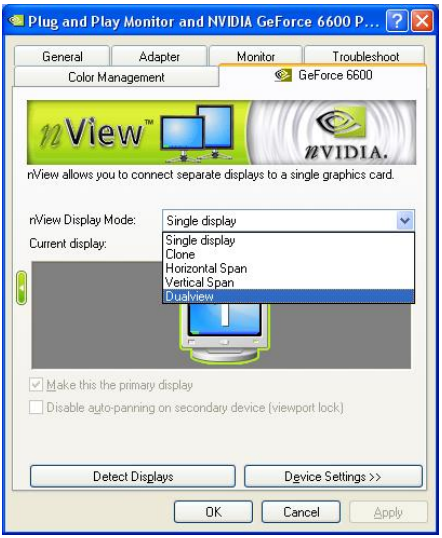

ATI CATALYST® Control Center - Basic
Desktop Mode Selection
The desktop mode selection will determine how the computer desktop is shown on your displays.
Select a desktop mode:
Extended Desktop
(Current Mode)
The desktop is extended to your second display. Settings can be set independently for each display. This is useful when you want to watch video, or work on your computer with more room for multiple windows.
Clone
The same desktop image is shown on both displays. This is useful when giving presentations.
Horizontal Stretch
One large desktop is stretched across two displays as if they were a single display. Settings are the same for both displays.
Single Display
Your second display will be turned off.
< Back
Finish

5. If user selected the Advanced mode, click the **View** button.
6. In **Display Manager**, right click on the second Display on the right side and select **Extend Main onto monitor**.

7. Adjust each monitor resolution to 1024x768 、1280x1024 ,1920x1200, 1440x900, or 1680x1050.

1.2.2 Graphic card with NVIDIA chipset

1. Click the NVIDIA nView, and select the **Dualview** mode.
2. Adjust each monitor resolution to 1024x768 、1280x1024 ,1920x1200, 1440x900, or 1680x1050.



3. To review if the display mode is correct, you can check the task bar. The task bar will show on the first monitor only.

Monitor 1 **Monitor 2**

Chapter 2 Software Installation

This chapter describes how to install the CM3000 software.

Before installing the software, make sure the Windows OS patches are up to date and the video graphic card driver is up to date.

To ensure you have the latest copy of the CM3000 software, download the updated version from the following site:

Worldwide :

http://www.avermedia.com/cgi-bin/support_download.asp

US/CANADA:

http:www.aver.com/security.html (click on Support → Download)

2.1 Minimum System Requirements

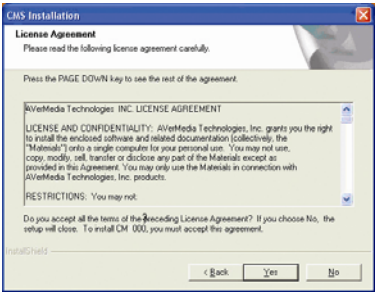
First, must verify if the computer meets the minimum system requirements.

CPU	Pentium® 4 3.0GHz or above recommended
OS	Windows 2000 / XP Professional / Vista
RAM	512MB for dual display,1GB for Quad display
Hard disk	120GB or higher
Media	CD-ROM drive
VGA	32-bit high color SVGA graphics card with 256MB video memory and DirectDraw® / YUV Rendering Capability
Audio	Sound card and speakers
Internet capacity	10/100 Base-T Ethernet card or Gigabit Ethernet

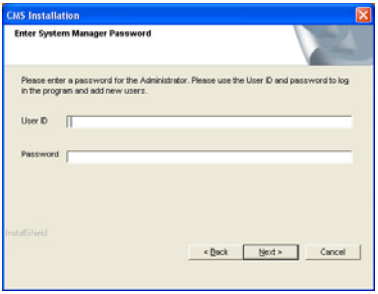
2.2 Installing the CM3000 Software in Windows XP/2000

1. Place the installation CD into the CD-ROM drive then click **Install CM3000**. And follow the on-screen instructions.

2. Please carefully read the license agreement. Click **Yes** to accept the agreement.


CMS Installation
License Agreement
Please read the following license agreement carefully.
Press the PAGE DOWN key to see the rest of the agreement.
AVerMedia Technologies INC. LICENSE AGREEMENT
LICENSE AND CONFIDENTIALITY: AVerMedia Technologies, Inc. grants you the right to install the enclosed software and related documentation (collectively, the "Materials") onto a single computer for your personal use. You may not use, copy, modify, sell, transfer or disclose any part of the Materials except as provided in this Agreement. You may only use the Materials in connection with AVerMedia Technologies, Inc. products.
RESTRICTIONS: You may not
Do you accept all the terms of the preceding License Agreement? If you choose No, the setup will close. To install CM 000, you must accept this agreement.
InstallShield
< Back
Yes
No

3. Enter the administrator ID and password.


CMS Installation
Enter System Manager Password
Please enter a password for the Administrator. Please use the User ID and password to log in the program and add new users.
User ID
Password
InstallShield
< Back
Next >
Cancel

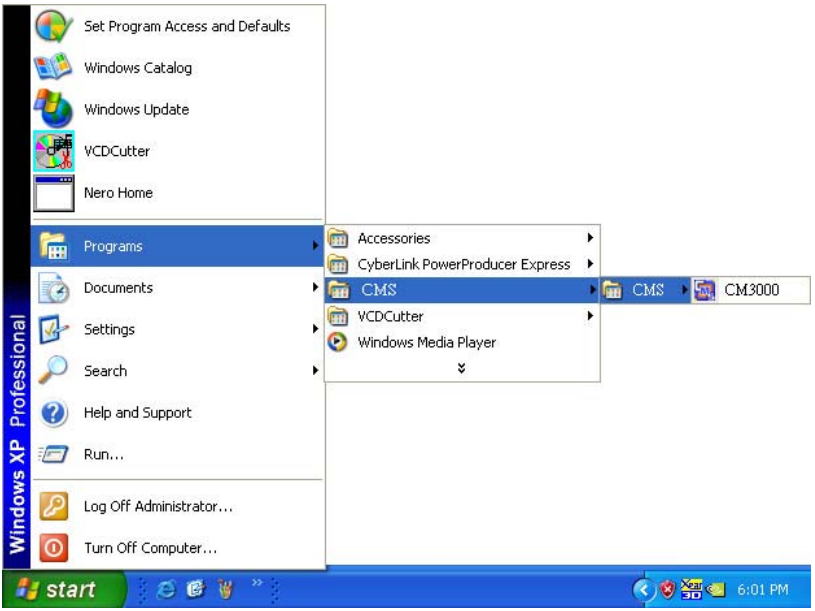
4. Click **Finish**.

5. User may now run the CMS program. To run the application, click on your PC desktop or click **Start**>**Programs** >**CMS** >**CMS** > **CM3000**.

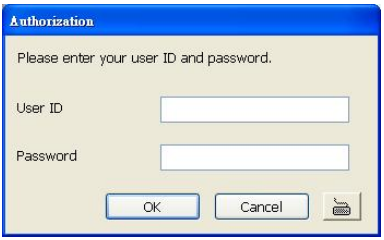
Chapter 3 Using the CMS

3.1 Running the CMS Software

To run the application, double-click on your PC desktop or click **Start** > **Programs** > **CMS** > **CMS** > **CM3000**.



For security purposes, some of the features would require you to enter a User ID and Password before they can be accessed. When the Authorization dialog box appears, key in your User ID and Password. (If this is the first time, enter the one you have registered when installing the software.)



3.1.1 Using the Virtual Keyboard

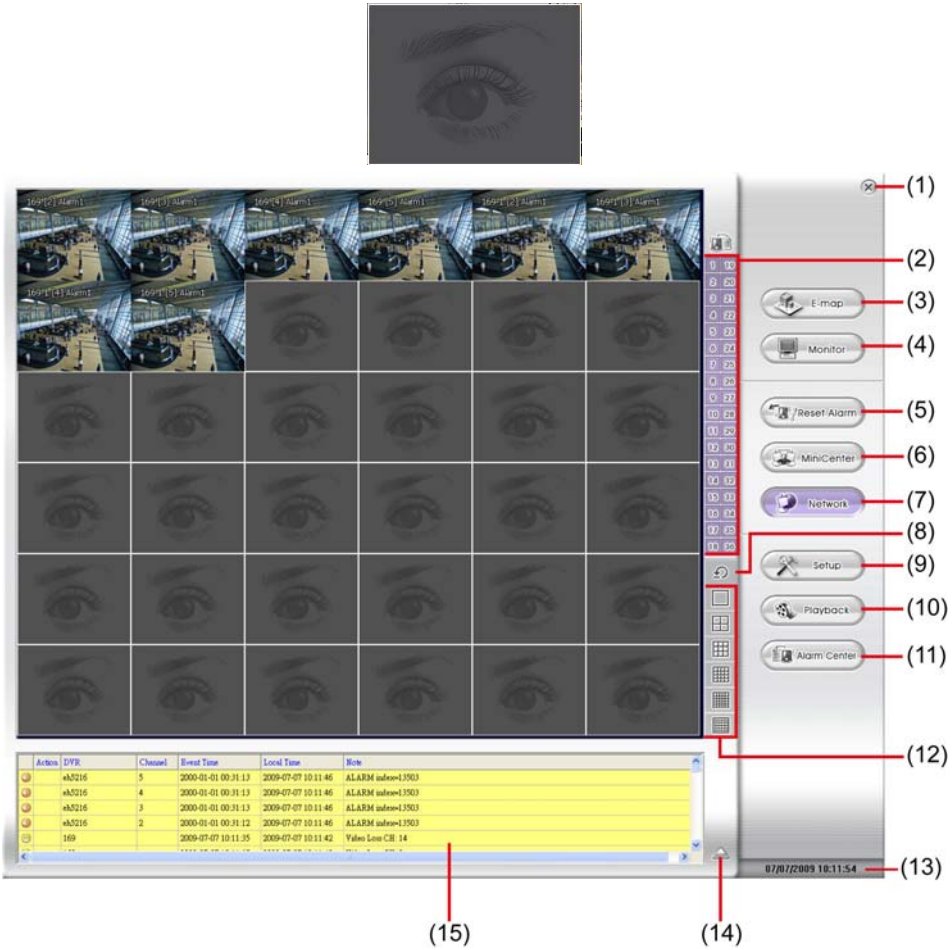
If the keyboard is not available, you may use the Virtual Keyboard. Just click to show the virtual keyboard. For uppercase and lowercase, click **shift** button.

On-Screen Keyboard
File Keyboard Settings Help
esc F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 psc slk brk
` 1 2 3 4 5 6 7 8 9 0 - = bksp ins hm pup nlk / * -
tab q w e r t y u i o p [ ] \ del end pdn 7 8 9 +
lock a s d f g h j k l ; ' ent 4 5 6
shft z x c v b n m , . / shft 1 2 3 ent
ctrl alt alt ctrl 0 .

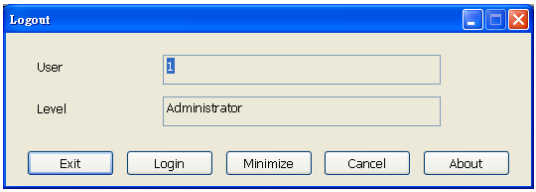
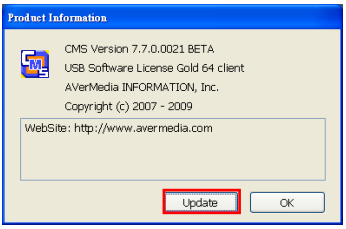
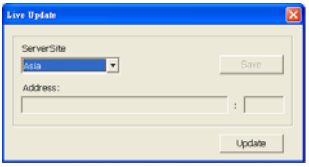
3.2 Using the CMS Application

When an alarm occurred on the DVR server, the video is transmitted to the CMS and display on the main screen. The transmit video can be an image or live video. User can select the type of video transmitting in **System setting (**see also Chapter 4.1). You may download and playback the complete video directly from the DVR server by clicking on the event log. **Make sure the main DVR server is set to send video to the CMS when an alarm has occurred**.

The video stream before the eye indicates the latest occurrence. Also, there is a red frame which indicates the latest occurrence when the video transmitting is alarm image type.



CMS Center in Alarm Live Video Mode

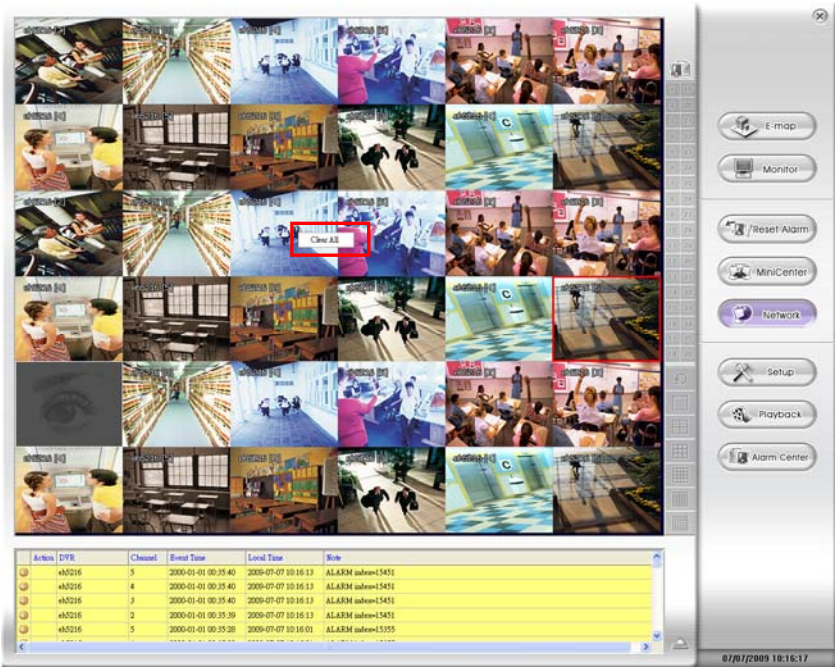
Name	Function
(1) Exit	Call up the Logout dialog box. In the logout dialog box, you may do the following:  - Click **Exit** to close the CMS program. Only the administrator is authorized to access this command. - Click **Login** to sign-in as a different user. - Click **Minimize** to reduce the CMS to taskbar button. The authorization is required, please enter the password. - Click **Cancel** to close the Logout dialog box. - Click **About** to find out more about the software and update CMS firmware. Click **Update** in Product Information window to upgrade the newest CMS application. In Live Update window, select the **Server Site** and **Address** and click **Update**.  
(2) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view the camera. This function only available in **Alarm Live Video** mode.
(3) E-map (F3)	Switch to display the map and show the location of the DVR server on the map. If you are using a single monitor, press **ESC** to revert back to the CMS main application(see also Chapter 4.6.2)
(4) Monitor (F4)	Switch to display live video from the selected DVR servers group. If user is using a single monitor, press **ESC** to revert back to the CMS main application(see also Chapter 3.3).
(5) Reset Alarm	Click to reset all DVR alarm status
(6) MiniCenter Viewer	To call out the MiniCenter viewer. Also, user can double click on screen or alarm event to call out the MiniCenter Viewer.(Also refer to Chapter 3.4)
(7) Network	Enable/disable the remote alarm data received. This is activated automatically when the CMS software starts up.
(8) Refresh	To refresh the alarm video that display on the screen. This function only available in **Alarm Live Video** mode.
(9) Setup	Configure the CMS system settings. Only the administrator is authorized to access this command. (see also Chapter 4)
(10) Playback	Select to playback video from the local hard disk or remote DVR server (see also Chapter 5).
(11) Alarm Center	To view, search, and navigate the alarm (see also Chapter 3.5).

Name	Function
(12) Split Screen Mode	Select from 6 different split screen types to view all the cameras. It also allows you to switch and view different camera number by click Camera ID in a single screen mode. This function only available in **Alarm Live Video** mode.
(13) Status	Display the current date, and time
(14) Log extender	Expand and reduce the log viewer
(15) Log viewer	List the entire info in event mode or text mode from all DVR servers.

There are a few Hot keys for quick switching between the different applications or display mode on a single monitor system.

- **F1:** displays current DVR server information on the CMS Monitor screen
- **F3:** Switches to E-Map mode
- **F4:** Switches to Monitor mode
- **Esc:** Switches back to the CMS application main screen

When CMS Center in **Alarm Image** mode, right-click on the alarm image will call out **Clear All** short-cut. Select to clear all current displayed alarm images.



CMS Center in Alarm Image mode

3.3 Using the Monitor

When user has setup the monitor set in Camera Setup (see also Chapter 4.3), then click **Monitor** to view all selected cameras live video and playback. The monitor will switch to monitor mode, if user using more than one monitor, then all enabled monitors will switch to monitor mode.

Right-click on the channel screen could select to start recording.

Dual Monitor Screen

The following will describe the buttons function on Monitor interface.

Name		Function
(1)	Center	Back to CM3000 main UI(center UI)
(2)	Monitor Controller	To call out monitor controller dialog box. User can manage the monitor set in monitor controller dialog(see also Chapter 3.3.1)
(3)	PTZ	To call out PTZ control panel(see also Chapter 3.3.2)

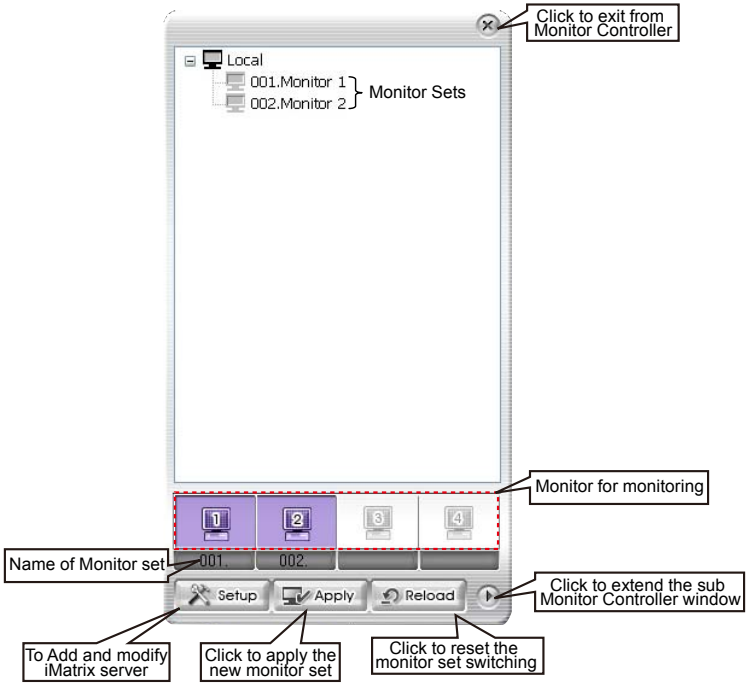
Name	Function
(4) Audio	Enable/disable audio. When audio is enabled, user will see the audio icon on screen, click on the audio icon (audio icon will turn to green) of channel to hear the sound. Each time only can play one channel's audio.
(5) Monitor Name	Display name of current monitor set.

3.3.1 Using the Monitor Controller

User can use Monitor Controller to switch different monitor set for monitoring and add/delete the channel in monitor set.

User needs to create monitor set in order to using Monitor Controller. To create monitor set, please go to **Setup** > **Camera** (see also Chapter 4.3 Camera setup)

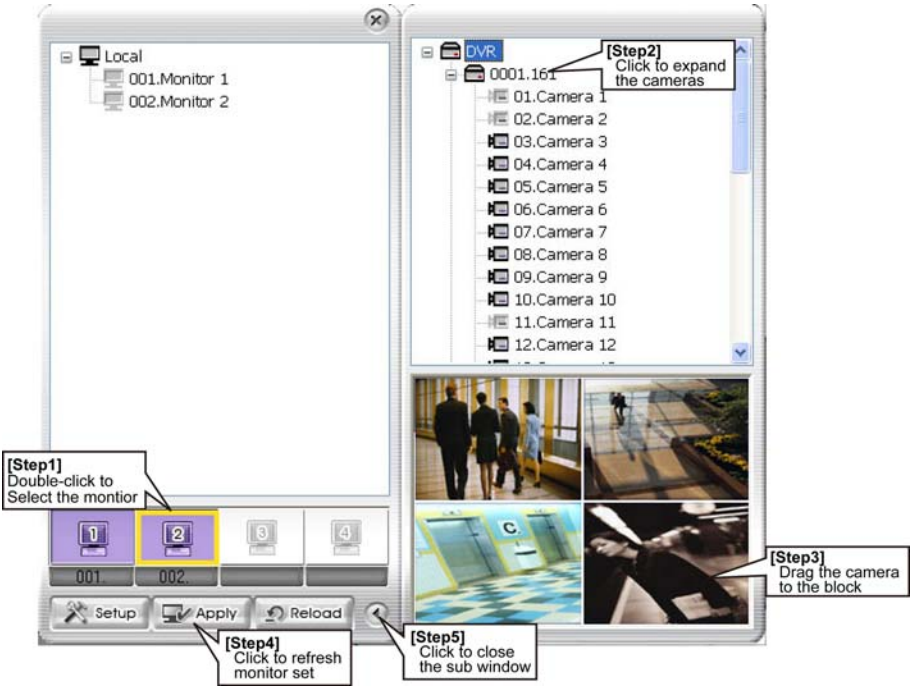
1. Click Monitor Controller
2. The Monitor Controller window will show up as below shown:



- The monitor set is gray that indicates the monitor set is selected and been monitored.
- The monitor 1 ~ 4 are purple that indicate the monitor is monitoring.
- Right-click on monitor and select the **Recover** to reset the monitor.

3. Drag the monitor set from monitor list to the monitor (1 ~ 4) and click **Apply** to activate it. To reset the monitoring group, click **Reload**.
4. To configure monitor set, click arrow button to expand the sub Monitor Controller window.
5. Select the monitor. The DVR servers are included in the monitor set will list on sub Monitor Controller window. The lower part of window display all monitored channels in the monitor set.

6. To add new channels, click the DVR server to un-fold the available cameras. Drag the camera to the blank channel block that has no channel number and name display
7. To change the monitored channels' position, please delete the monitored channels and drag the channels to the new position. To delete channels from monitor set, right-click on channel and select **Recover**.
8. Click **Apply** to refresh the monitor set.
9. Click arrow button to close the sub window.



■ To Add the iMatrix Server

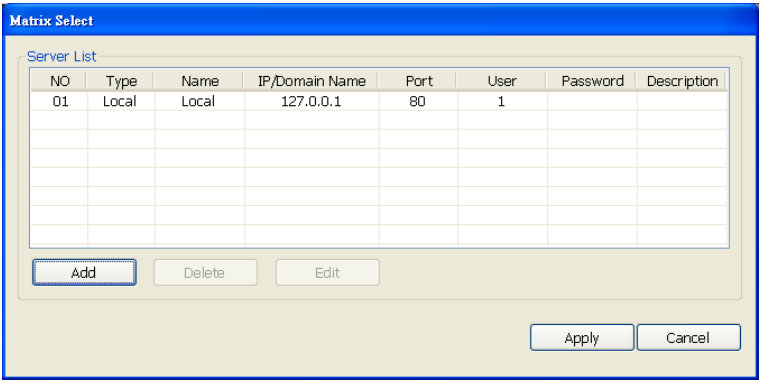
User can add more remote iMatrix Servers and select the iMaxtrix from iMatrix list. Also, user can delete and modify the iMatrix from existing iMatrix list.

- Only **CMS GOLD** version support remote iMatrix function.
- The remote iMatrix server only can be viewed, add /delete camera of monitor set is not allowed.

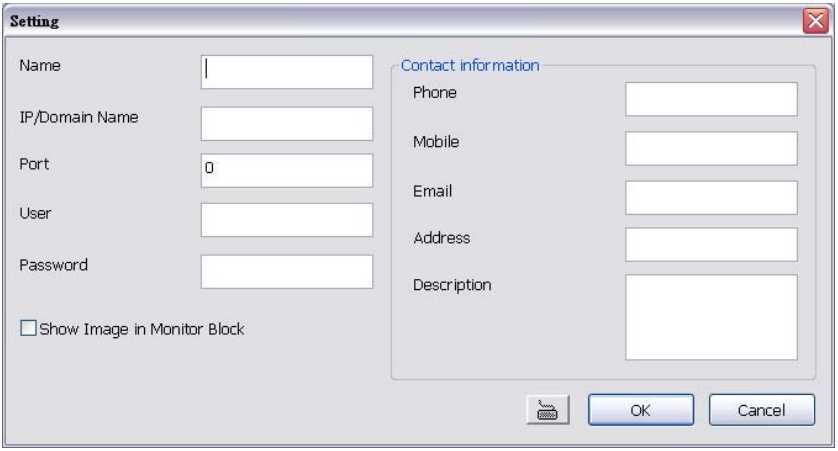
1. Click **Setup** from Monitor Controller dialog box.

Setup button will be available only when the USB Dongle is installed(**CMS GOLD** version)

2. The iMatrix Select window will show up.



3. Click **Add** button to add a remote iMatrix server.
4. Fill in the **Name**, **IP/Domain Name**, **Port**, **User** (login ID), **Password** and **Description** of the remote iMatrix server. Enter the **Contact Information**(**Phone, Mobile, Email, Address, Description**) for emergency contact. Mark **Show Image in Montor block** if user wants to view the image of the channel at the Monitor Controller window(see also Chapter 3.3.1)
5. And then, click **OK** to save the setting.



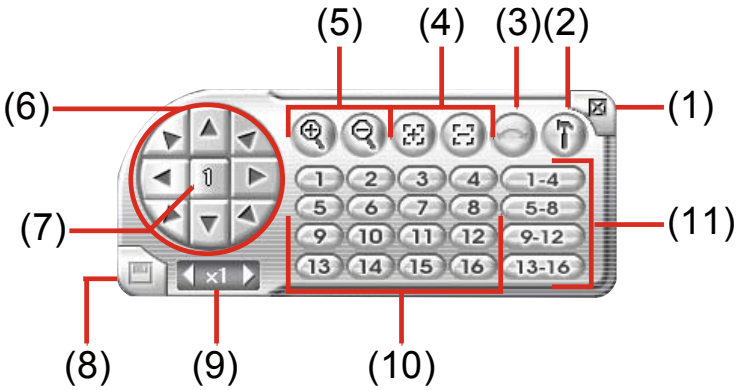
6. The iMatrix will be added into the iMatrix list in iMatrix Select window.

7. To switch the iMatrix server, select the iMatrix server and click **Apply**.

Only can select one iMatrix server at a time.

8. To delete the iMatrix server, select the iMatrix server and click **Delete**. To modify, click **Edit**.

3.3.2 Familiarizing the Buttons in PTZ Camera Control Panel



Name	Function
(1) Close	Exit PTZ camera controller.
(2) Setup	To select PTZ camera for controlling.
(3) AutoPan	Operate the PTZ cameras automatically based on the selected camera group preset position number.
(4) Focus +/-	Adjust the focus manually to produce clear image.
(5) Zoom +/-	Zoom in and out the image.
(6) Direction buttons	Adjust and position the focal point of the PTZ camera.
(7) Camera ID pane	Display the PTZ camera number that is being operated.
(8) Save Camera preset position	Save the PTZ camera preset position number. Select the camera and click the preset position number and save it.
(9) Camera lens speed controller	Adjust the moving speed of the PTZ camera lens.
(10) Camera preset position number	Move the PTZ camera to the preset point.
(11) Group AutoPan	Select to automatically operate PTZ camera in group.

3.3.3 Live Playback the Recorded Video

User can playback recorded video immediately while monitoring from the local CMS server if the recording is enabled.

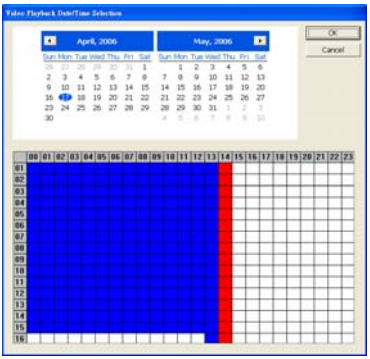
- Playback function must be enabled. Please go to **Setup** > **Camera** and select the monitor set and enable the playback function (see also Chapter 4.3 Camera setup)
- Playback doesn't support on EB series.

1. In Monitor mode, click the preview icon of channel and the channel will start live playback.

- The icon indicates the channel is in live playback mode.
- Move the mouse course to the bottom of screen, live playback control bar will show up.

2. User can use the live playback control button to operate the playback.

- Click channel to switch to full screen mode for operating live playback control button easily.
- Only supports 4 channel live playback at the same time.

Button	Function
	Begin: Move at the beginning of video.
	Slower: Play the recorded video file at the speed of 1/2X, 1/4X, 1/8X, 1/16X, or 1/32X.
	Pause: Briefly stop playing
	Play: Play the video
	Next: Go to the next frame.
	Faster: Play the recorded video file at the speed of 2x, 4x, 8x, 16x or 32x.
	End: Go to the end of the video.
	Select recorded vide to playback from remote DVR server hard disk. Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. 

Button	Function
x1 10:00:01.261	Display playback speed and recoding time.

3.3.4 Viewing the GPS Data on the Monitor

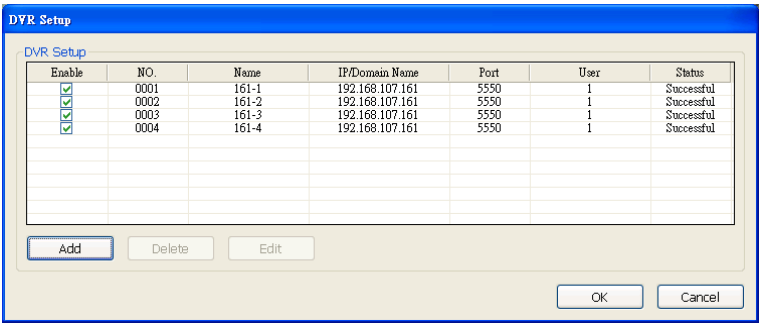
If user has monitored the MOB DVR server, user can view the GPS information on Monitor. Also, user can view the location of MOB DVR server on the Google map.

Display the GPS Data on the Monitor:

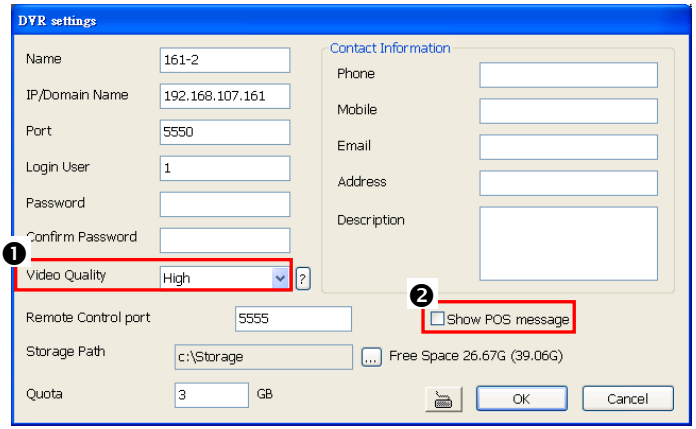
Follow the below steps to display the GPS data on the Monitor.

1. Click **Setup** in Center interface.
2. Enter the password for authentication. When CMS configuration selection appears, click **DVR**.

3. In DVR window, select the MOB DVR server or add the MOB DVR server (see also Chapter 4.2.1).

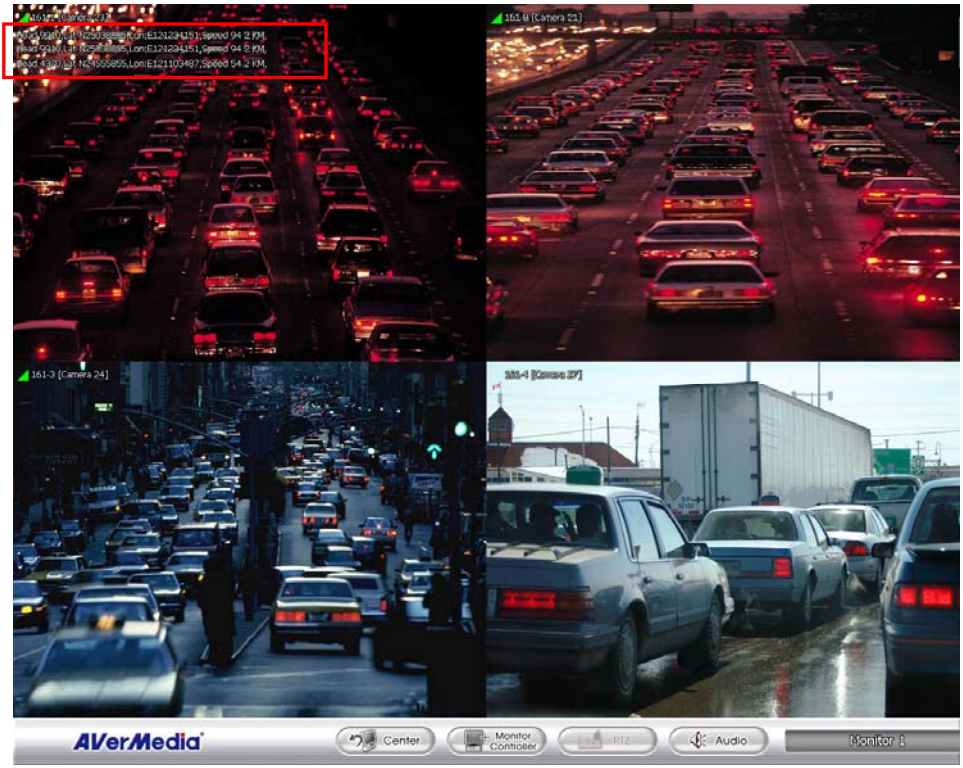


4. After selected the MOB DVR server, click **Edit**. The *DVR Setting* window will appear.



5. Select the **Video Quality** to **High**, and then, mark the **Show POS message** to display the GPS data on the Monitor.
6. Click **OK** to save and complete the change.
7. If the MOB DVR server hasn't been added any channels for monitoring, please refer to Chapter 4.3 to add the channels for monitoring.
8. Click **Monitor** to switch to Monitor mode. User should see the GSP data display on Monitor UI as following shown:

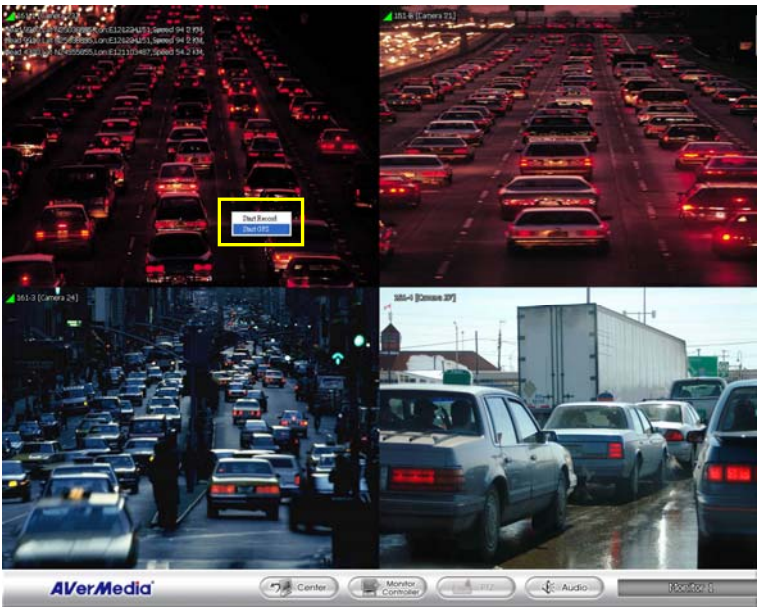
Position of the GPS data display relate to the setting of **Monitor Text Setting** in the *System setting*.



Viewing the GPS Data on the Google Map:

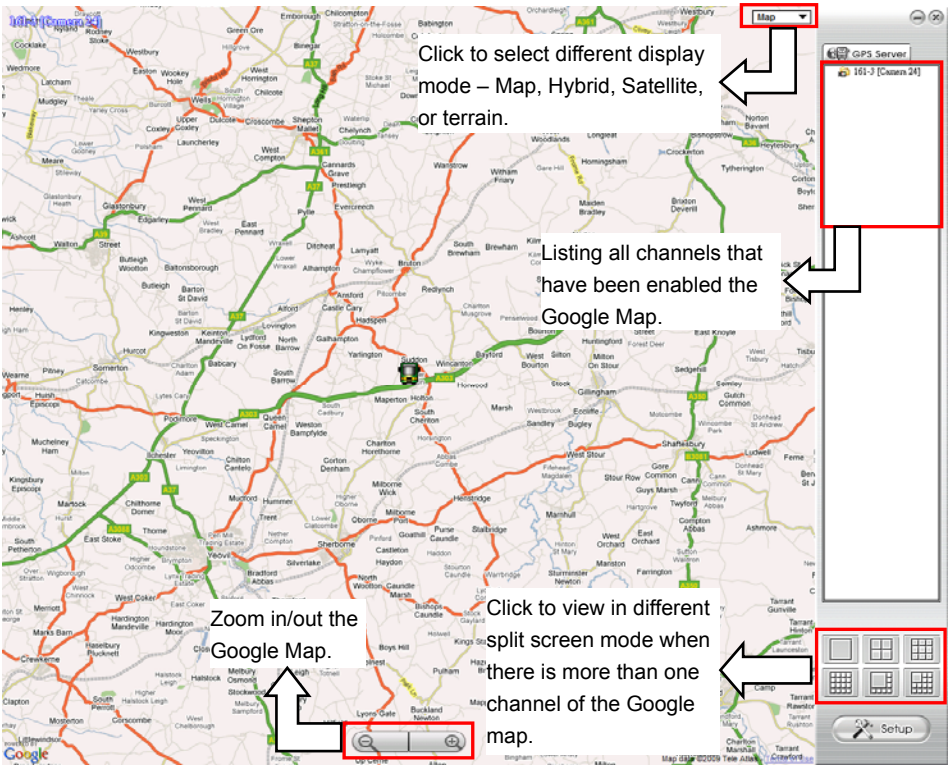
Following the below steps to view the GPS data on the Google Map.

1. In the Monitor mode, right-click on the channel that is monitored from MOB DVR server.
2. The shortcut menu will appear. And then, select the **Start GPS**.

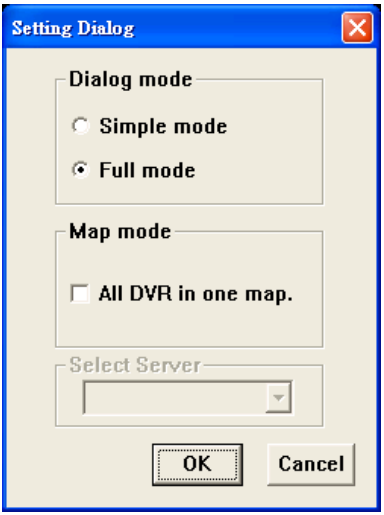


3. The *Google Map* View window will show up.

4. Click on **Maximum** button to enlarge the *Google Map View* window.


Click to select different display mode – Map, Hybrid, Satellite, or terrain.
Listing all channels that have been enabled the Google Map.
Zoom in/out the Google Map.
Click to view in different split screen mode when there is more than one channel of the Google map.
Map
GPS Server
Setup

5. Click **Setup** to setup the setting of the *Google Map View* window.



- **Dialog mode:** the way of the display of the Google Map View window. When in Simple mode, user can select the server from **Select Server**.

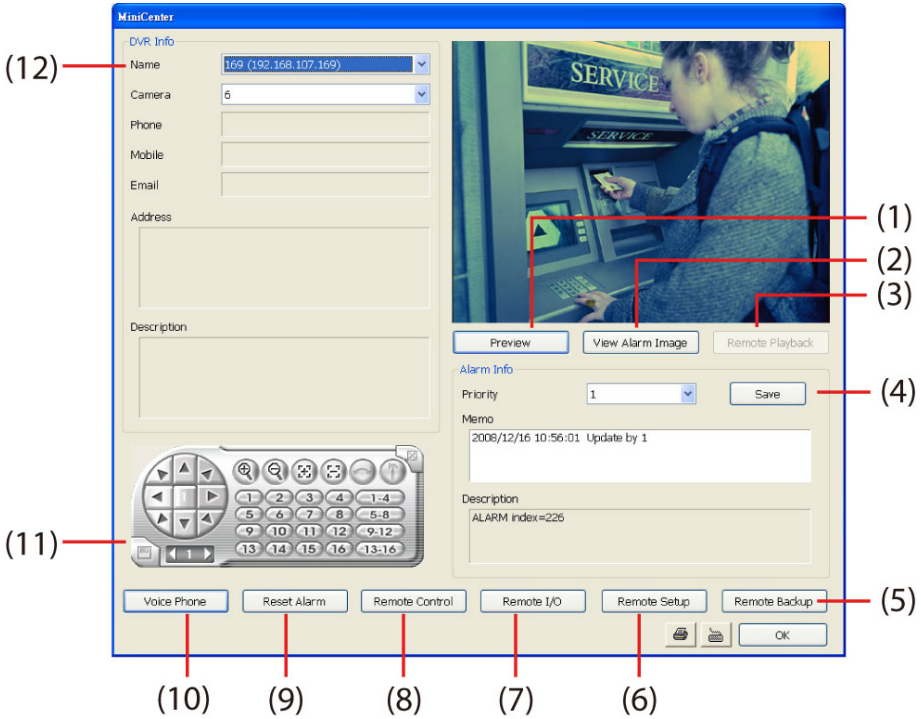
Simple Mode **Full Mode**

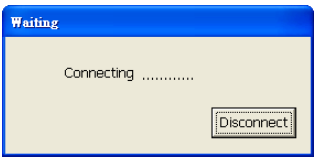
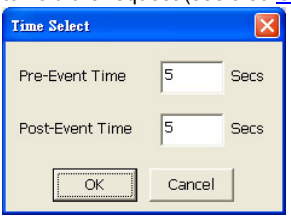
- **Map Mode:** the way of display the channel of the Google map. Mark **All DVR in one map** will enable all channels display on one Google Map window.

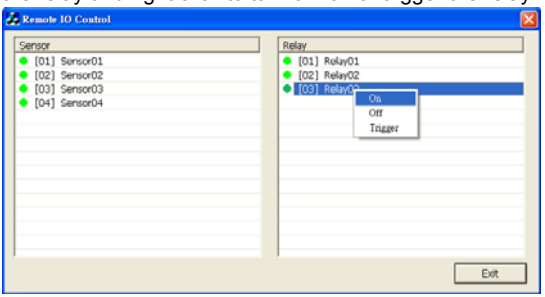
6. To disable the Google Map view, click **X**.

3.4 Using the MiniCenter Viewer

In Minicenter, user could configure, backup, operate the remote DVR, reset alarm and change priority of alarm, and setup the camera of remote DVR.

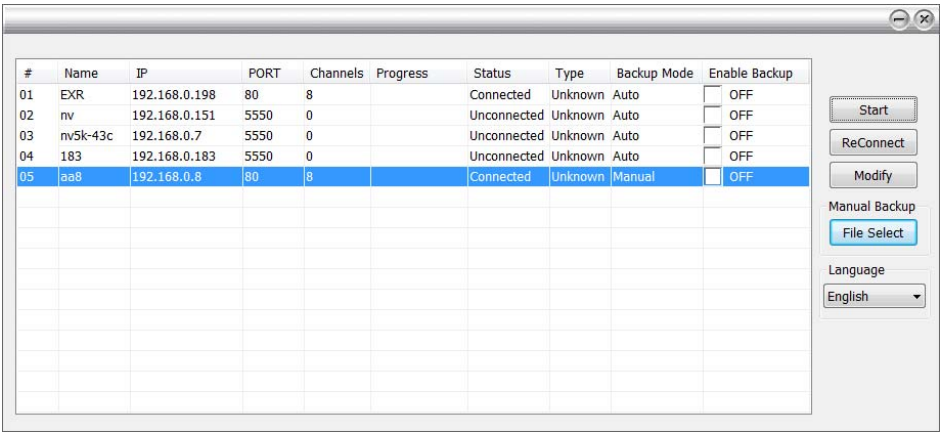


Name	Function
(1) Preview	View live video. User can cancel the connection by clicking **Disconnect** button if the connecting time is too long. 
(2) View Alarm Image	Playback the alarm video clip that is stored on the local hard disk.
(3) Remote Playback	Set the amount of time before and after the event to be retrieved from the DVR server. Click **OK** to accept and play the retrieved video and **Cancel** to void the request (see also Chapter 5.3) 

Name	Function
(4) Alarm Info	Display alarm event information which it was defined on DVR server. User can select priority of alarm event and enter some description in Memo column, and then click **Save** button to save the setting.
(5) Remote Backup	Remote Backup is purely for backing up the *.dvr file from the remote DVR sever(see also Chapter 3.4.1)
(6) Remote Setup	Change the remote DVR server settings(see also Chapter 3.4.2)
(7) Remote I/O	To view sensor and relay, also to turn on/off relay on remote DVR. Select the relay and right click to turn on /off or trigger the relay. 
(8) Remote Control	Connect to the remote DVR server and operate the application. Select the DVR server from the **Name** drag down list and click the **Remote Control** button. To use this feature, make sure the DVR remote server is enabled. For more details on software usage, please refer to the DVR user manual. This feature works with NV series v 5.7 above only.
(9) Reset Alarm	Clear the DVR server alarm list.
(10) Voice Phone	Enable/disable 2-way audio function. This function allows the **CMS** and **DVR** server to talk via the internet using a MIC. Make sure your microphone and speakers work before using this function. If the DVR server Talk to web-client setting is disabled, you will not be able to hear from the other side
(11) PTZ Control	Control the PTZ camera (see also Chapter 3.3.2).
(12) DVR Info	Display the DVR information that user has select to preview. User can switch to view different DVR or camera by drag down the Name or camera list. Phone, Address, Mobile, Email, and Description information were defined when set up the DVR server.

3.4.1 Remote Bakup

Remote Backup is purely for backing up the *.dvr file from the NV DVR sever. You can select between Auto Backup and Manual Backup. Auto Backup continuously archives one hour of the recorded data at a time, starting from the specified date. As for Manual Backup, it only archives the recorded data of selected date.

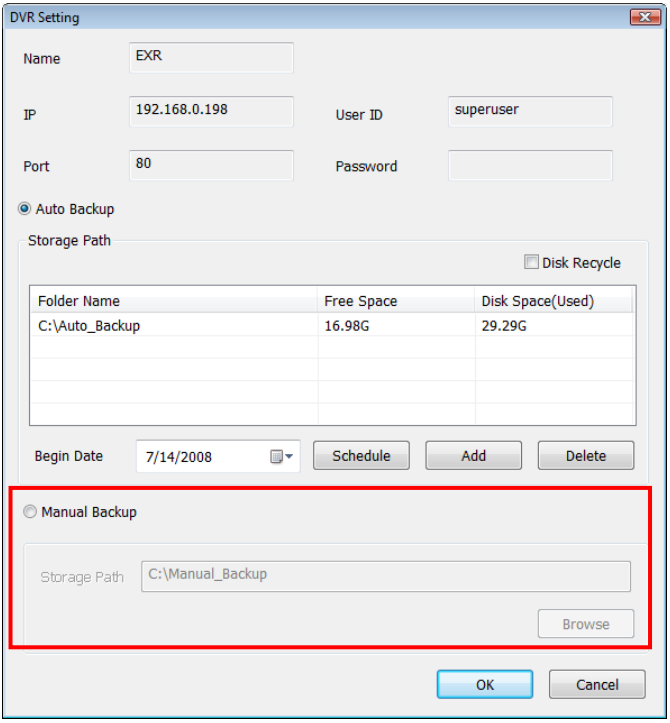


Auto Backup:

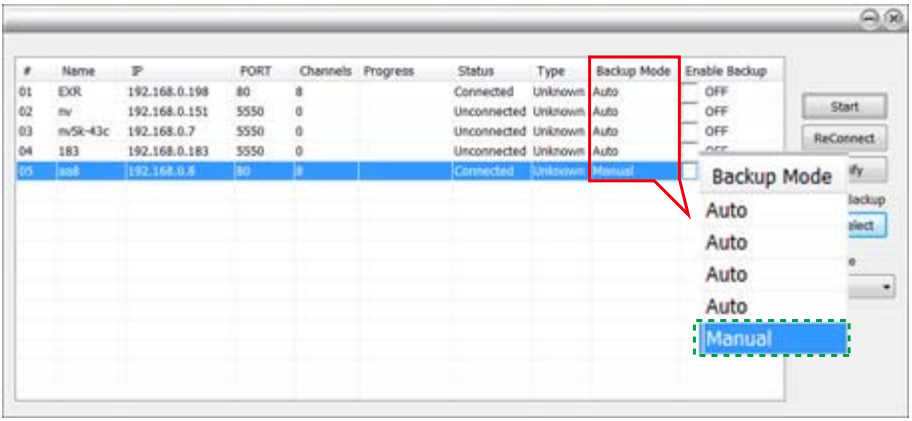
10. Click **Remote backup** button from Minicenter UI.
11. The Remote backup window will show up and list all added DVR servers.
12. Make sure CMS is connecting to DVR servers. If lost the connection with DVR server, select the DVR server and click **Reconnect** button.
13. Select the DVR server that user wants to backup by marking the **Enable Backup** check box. The marked Enable Backup will change to **ON** status.
14. And then, the CMS will start to backup.

Manual Backup:

1. Click **Remote backup** button from Minicenter UI.
2. Select the DVR server and click **Modify** button.
3. Select the **Manual Backup** at DVR setting dialog. And, user can change the backup direction by clicking **Browse** button.
4. And the, click **OK** to save the setting.



5. The **Backup Mode** of DVR server will change to **Manual**.



6. To execute manual backup, select the file first. Click **File Select** and select the files that user wants to backup and click **OK**.
7. And then, click **Start** to backup.

3.4.2 Remote Setup

Remote Setup is configuring DVR server from remote site.

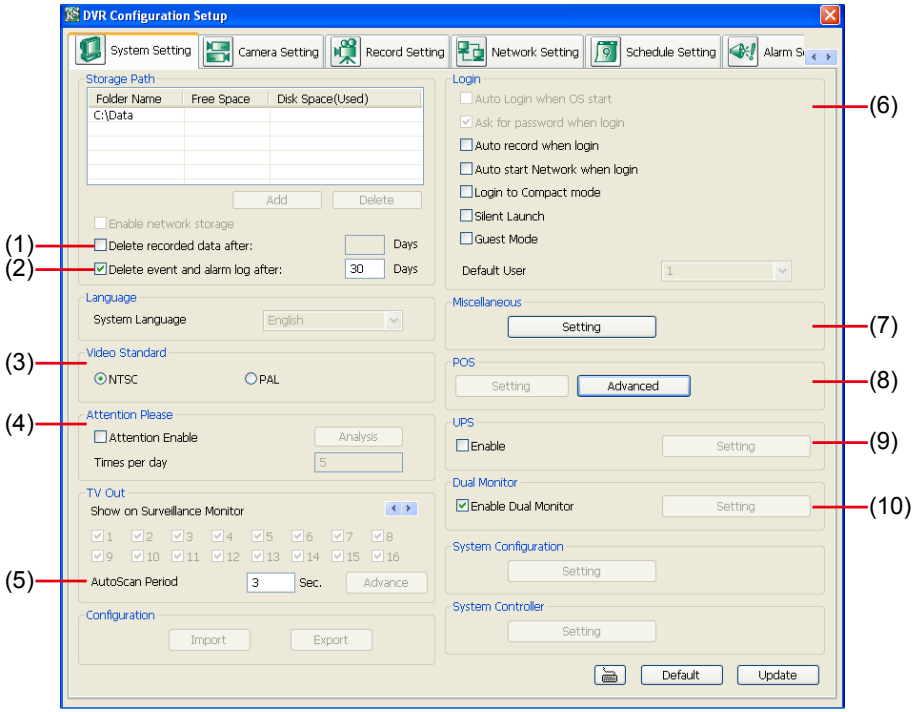
Click the **Remote Setup** button to call out the DVR server setup window.

> The remote setup contents will be varied that depends on the type of DVR (NV series, NX series, or EB series) is monitored.

The following setup contents are NV series. Some of functions may not support on NX series and EB series.

3.4.2.1 System Setting

Click **Update** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting.



(1) Delete recorded data after

If you want the system to automatically erase the data after a certain days, enable the **Delete recorded data after** check box and enter the numbers of days in **Days** text box.

(2) Delete event and alarm log after

If you want the system to automatically erase the event and alarm log files after a certain days, enable the **Delete event and alarm log after** check box and enter the numbers of days in **Days** text box.

(3) Video Standard

Change and select the proper video system according to your camera video system. If the video system setting is wrong, the video would appear abnormal.

(4) Attention Please

Check the attentiveness of the person who is monitoring the system. You may set the number of times the Attention dialog box to appear in a day in **Times per day** text box. When this feature is enabled, the **Attention** dialog box would appear. The person who is monitoring the system must enter the same number that appears from the left box at the right text box and then click **OK**.

5) TV Out

- **AutoScan Period**
  Set the display time gap from 3 to 10 sec. before it switches to the next camera.

(6) Login

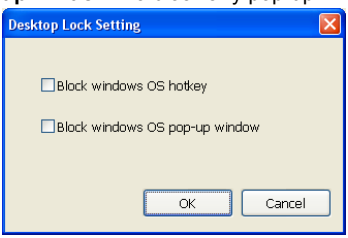
Enable the conditions in Login section you want the system to automatically carry out.

- **Auto record when login**
  Automatically start video recording when the NV DVR is executed.
- **Auto start Network when login**
  Automatically connect to network when the NV DVR is executed.
- **Login to compact mode**
  Switch to compact mode directly when the NV DVR is executed.
- **Silent Launch**
  Enable the DVR system minimizes on the system tray automatically right after start up.
- **Guest Mode**
  Automatically log in Guest mode when the NV DVR is executed. In guest mode, the functions are limited to preview and playback only.

(7) Miscellaneous

Enable the conditions in **Miscellaneous** section you want the system to perform.

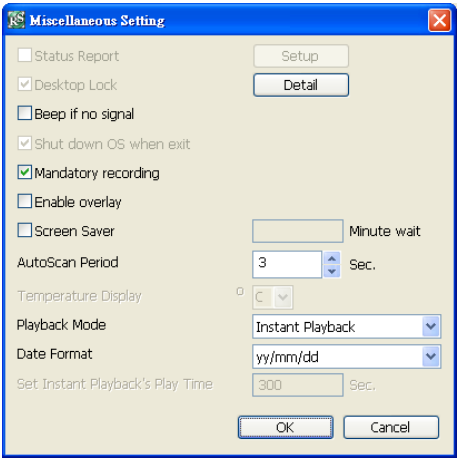
- **Desktop Lock**
  - ✓ **Block window OS hotkey:** Deactivate the [Ctrl-Alt-Del] and [Windows] keyboard key functions.
  - ✓ **Block windows OS pop-up window:** To block any pop-up window from windows system.



- **Beep if no signal**
  Make sound when the video signal is lost.
- **Mandatory Record**
  Always record video when software is running
- **Enable Overlay**
  To enhance video signal for better video quality.

Only support on NV6000 Express and NV7000H card.

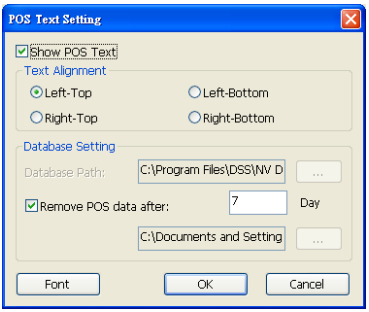
- **Screen Saver**
  Set a period time to enter screen saver mode when system idle.
- **Auto Scan Period**
  Set the time gap of the Auto Scan function from 3 to 10 seconds. This automatically switches to the next video in cycle depending on the set time gap
- **Playback Mode**
  Select the mode of playback the video.
  - ✓ **Select date and time:** Select the date and time which user wants to playback.
  - ✓ **Play the last file:** Automatically playback the video from the last hour
  - ✓ **Instant Playback:** Automatically playback the video which has just recorded
- **Date Format**
  Select the date format which wants to display in **Select date and time** playback mode



(8) POS

Set from which camera screen to display the data from the POS equipment. To set the text flow, color format, and POS database export, click **Advanced**.

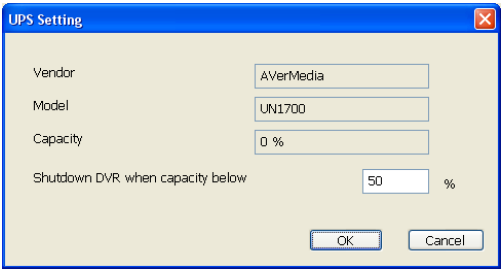
1. Mark **Show POS Text** to allow POS data to be display on surveillance screen.
2. Select the POS data display position on surveillance screen – Left-Top, Left-Bottom, Right-Top, or Right-Bottom.
3. To change the POS data font and color, click **Font**.
4. Mark **Remove POS data after** the POS data will be delete from DVR hard disk on the day that user has setup.



(9) UPS (Uninterruptible Power Supply)

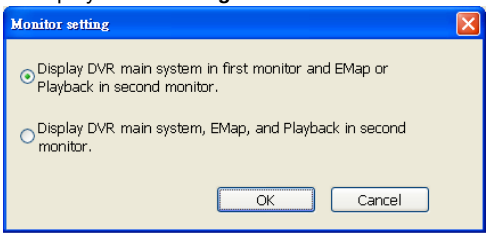
Protect the system from damaging, such as power surges or brownouts. Mark **Enable** and click **Setting** to setup the **Shutdown when capacity below** percentage level for NV DVR to showdown properly when the battery backup power has reached the setting. The UPS device must be connected to your computer (refer to your UPS user's guide).

The UPS application must meet Windows XP or Windows Vista system requirements.



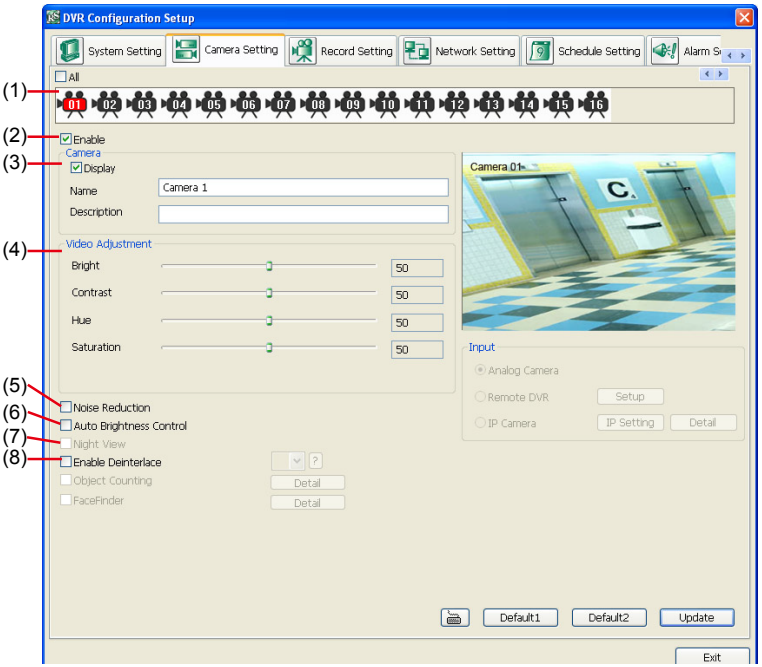
(10) Dual Monitor

Enable/disable dual monitor display. Click **Setting** to select the dual monitor display mode.


Monitor setting
Display DVR main system in first monitor and EMap or Playback in second monitor.
Display DVR main system, EMap, and Playback in second monitor.
OK
Cancel

3.4.2.2 Camera Setting

Click **Update** to save and apply the new settings, click **Exit** to exit without saving, and click **Default1/ Default2** to revert back to original factory setting.



(1) Camera Icons

Select the camera number you want to adjust the video setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, Right click on the camera icon. To select one camera only, Left click on the camera icon. The camera icon turns red when it is selected.

(2) Enable

Set to enable/disable the selected camera. When there is no video source on the camera, we suggest disabling it so that the system won't detect it as video loss error.

(3) Camera

- **Display**
  Enable/disable to show the video. Even if the video of the selected camera is hidden you can still record the video and preview it in playback mode.
- **Name**
  Change the camera name.
- **Description**
  Add a short comment.

(4) Video Adjustment

Adjust the Brightness, Contrast, Hue and Saturation of the selected camera.

(5) Noise Reduction

Reduce undesirable video signal and improve the quality of the video.

Noise Reduction uses lots of CPU resource. Please use this feature only if it is really necessary.

(6) Auto Brightness Control

Automatically adjust the brightness.

(7) Night View

Automatically adjust the exposure to make the image more visible especially when the site is dark.

You can only use this function when the ***Auto Brightness Control is enabled***.

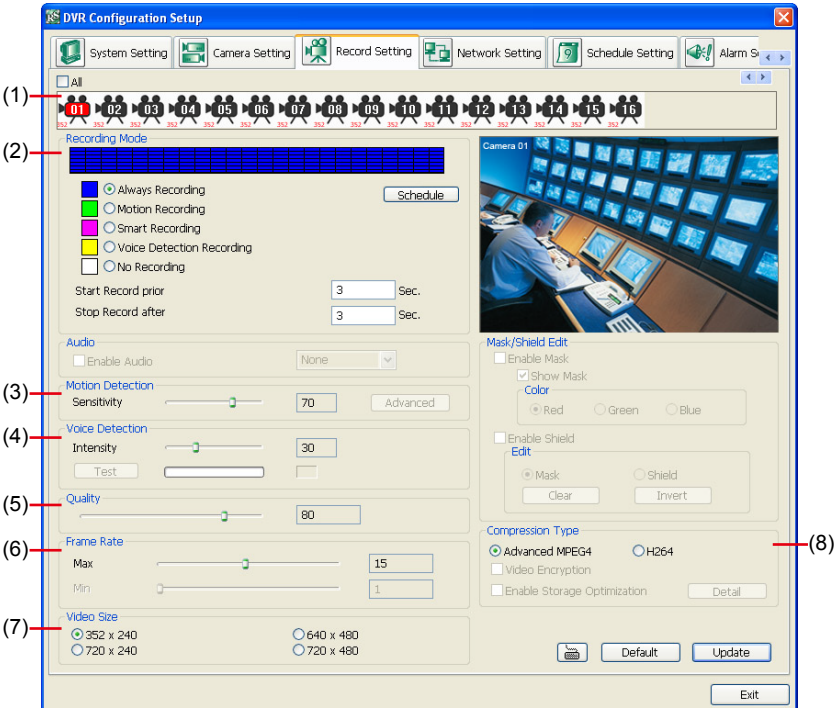
(8) Enable Deinterlace

To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

De-interlace doesn't support on EB DVR series.

3.4.2.3 Record Setting

Click **OK** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting.



(1) Camera Icons

Select the camera number you want to set the recording setting. To select all the cameras, enable the **ALL** check box. To select more than one camera, **Right click** on the camera icon. To select one camera only, **Left click** on the camera icon. The camera icon turns red when it is selected.

(2) Recording Mode

The blocks from 00 to 23 represent the time in 24-hour clock. To record in full 24 hours, select the recording mode and click the ⊙ button. If you want to only record at a particular time or day, click **Schedule** button and select the **Recording Mode** , and then click on the time or day blocks. When the system starts recording a red triangle mark would appear at the upper left corner of the screen.

The recording modes are listed below:

- **Always Recording**
  Record the video from the selected camera and save it to the designated storage path
- **Motion Recording**
  Start recording the video from the selected camera only when the system detects movement. Once a motion is detected, the system automatically saves the previous frames and stop based on the **Start Record Prior** and **Stop Record After** settings.
- **Smart Recording**

Automatically switch to recorded at the maximum frame rate setting once a motion is detected and if there is no motion, it records at the minimum frame rate setting. Set the maximum and minimum frame rate setting in **(6) Frame Rate** section.

- **No Recording**
  The system won't do any recording.

(3) Motion Detection

Adjust the sensitivity of the motion detector. The higher the value, the finer the sensitivity is detected. When it detects a motion, a green triangle mark would appear at the upper left corner of the screen.

(4) Voice Detection

Adjust the intensity of the audio detector. The system detects sound when it exceeds the intensity value.

(5) Quality

Adjust the video quality. The higher the value, the lower the compression level and uses more hard disk space.

(6) Frame Rate

Set the maximum number of frames to be recorded during motion and motionless state. The frame rate ranges from 1 to 30 for NTSC and 1 to 25 for PAL. The higher the frame rate, it uses more hard disk space.

(7) Video Size

User can activate the **Enable Deinterlace** to enhance the video quality. Set the **Enable Deinterlace** mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

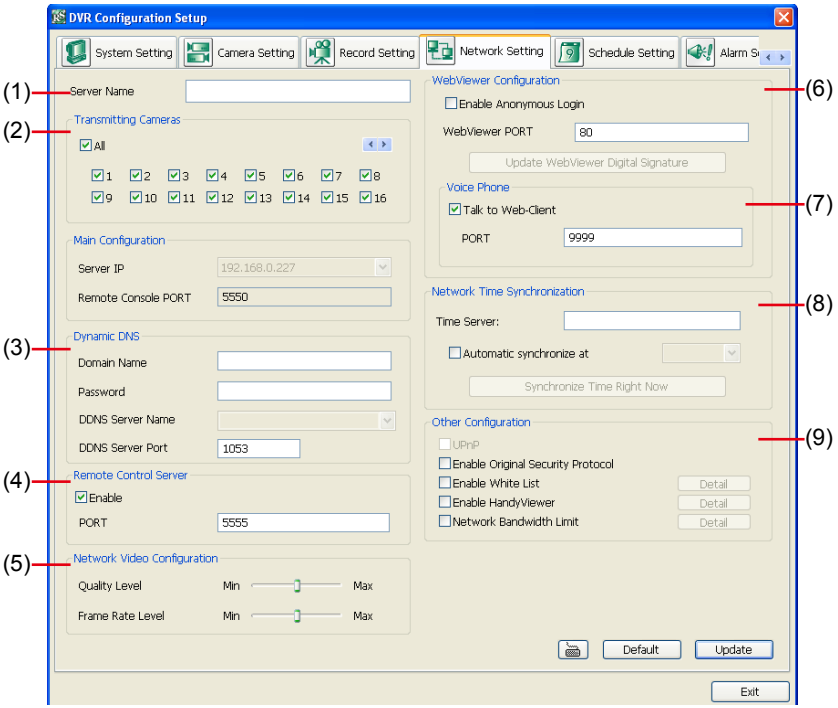
(8) Compression Type

User can refer the table below to check the NV card supports what type of compression. H264 is the latest and advanced video compression format that delivers better video quality and smaller file size but this uses more CPU resource. Advanced MPEG4 and MJPEG, both provide a standard for color picture compression rate. MPEG4 uses higher compression rate and smaller file size. While MJPEG uses slightly lower compression rate and bigger file size.

	MPEG4	MPEG 4 Encryption	H264	H264 Encryption	MJPG
NV3000	✓	✓	✓	✓	✓
NV5000	✓	✓	✓	✓	✓
NV6000E	✓	✓	✓	✓	
NV7000H			✓		
NV7240	✓				
NV7480	✓				
NV9000E	✓				

3.4.2.4 Network Setting

Click **Update** to accept the new settings, click **Exit** to exit without saving, and click **Default** to revert back to original factory setting.



(1) Server Name

Assign a name for the DVR unit. Letters of the alphabet and numbers only.

(2) Transmitting Cameras

Select and click on the camera number in the Transmitting Camera section you want to make it accessible via internet using WebCam, Remote Console, PDA Viewer and Hand Viewer (still image). To select all the cameras, enable the **ALL** check box.

(3) DDNS Server Port

Enter the Domain Name and Password. To use this feature, go to http://ddns.avers.com.tw and register (also see Appendix A).Enter the port that is used to connect the DDNS server.

(4) Remote Control Server

Enable/disable remote control from remote application (ex. CM3000). Enter the remote accessing port in **Port** column. The default value is 5555.

(5) Network Video Configuration

Set up the video quality and frame rate for viewing and transmitting to the remote program. Scrolling adjust bar to set the **Quality level** and **FrameRate level**.

(6) WebViewer Configuration

Activate **Enable Anonymous Login** to remotely access the DVR server without the need of password

(7) Voice Phone

The **Talk to Web-Client** is to use the 2-Way Talk feature that allows the client and server to talk via internet using microphone. Make sure both microphone and speakers work before using this feature. If the **Talk to Web-Client** is disabled, the person in the NV DVR server side can only hear the voice from the client side that is when the WebCam 2-Way Talk button is activated.

(8) Network Time Synchronization

Adjust the NV DVR system time same as network time server. Fill in the **Time Server** IP address or

domain name. Select **Automatic Synchronize** time to set automatic synchronize time on a daily basis. Or, user can click **Synchronize Time Right Now** to adjust time right away.

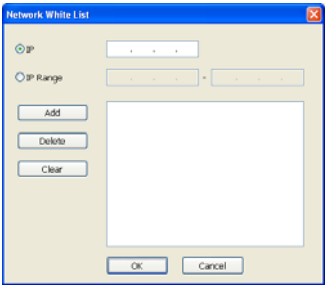
(9) Other Configuration

- **Enable Original Security Protocol**

  Enable DVR system to accept the connection from former version of remote access application. For example, if user uses CMS version 7.1 and connect to DVR server with version 7.3, and then, user has to enable this option to make it work. It is due to that DVR system has new security protocol and it's not compatible with old remote access software.

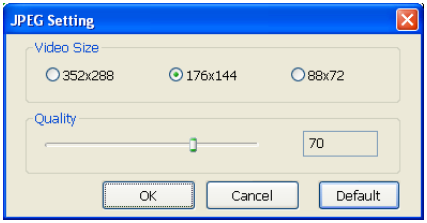
- **Enable White List**

  An access permit list for the remote accessing of NV DVR server. Enter the IP address and click **Add**. Or, enter a range of IP address and click **Add**. To delete the IP from the list, select the IP and click **Delete** button. To reset the input, click **Clear** button.



- **Enable HandyViewer**

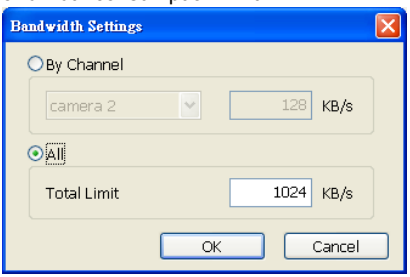
  Enable remote users to use a PDA or a mobile phone to access NV DVR server and select the video size and quality.



- **Network Bandwidth Limit**

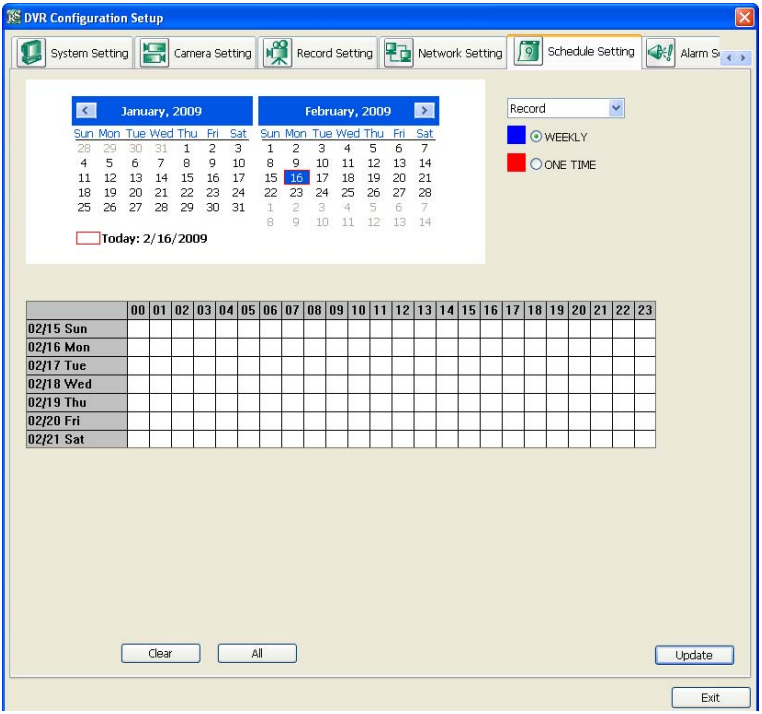
  By Channel: Set the network bandwidth by each channel.

  All: Set the total network bandwidth consumption limit.



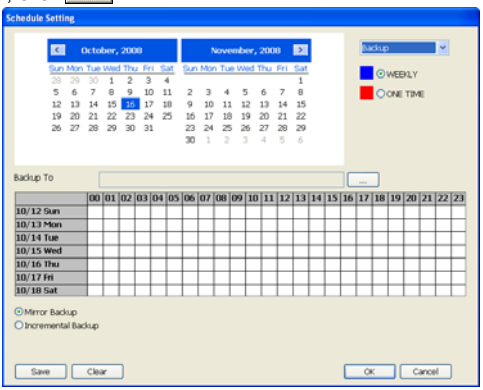
3.4.2.5 Schedule Setting

Schedule to record, backup, enable network, reboot and disable alarm of all the cameras either weekly or one time. The number from 00 to 23 represent the time in 24-hour clock. The left most column display the days in a week.



To Set the Schedule Setting:

1. Select the date in the calendar. Use ◄ and ► buttons to shift the calendar to the left or right.
2. Select the condition you want to schedule in the drop down list.
   - **Record**
     Activate all the cameras to start video recording at the set time based on the Recording setting
   - **Backup**
     To assign backup path, click ...



- ✓ **Mirror Backup:** Save a copy of all the data at the set time and specified backup path.
- ✓ **Incremental Backup:** Only backup the data that are not yet included in the archive from last time.

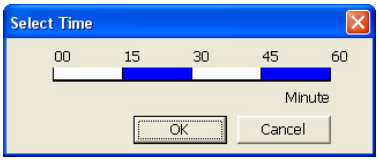
Make sure the backup folder and storage folder are not on the same drive.

- **Enable Network**
  Activate NV DVR remote system to access at the set time. After the appointed time, the Network function will be disabled. If the Network function is already enabled, the Network function will not be disabled when the appointed time has ended.
- **Reboot**
  Restart the PC at the appointed time.

Make sure the Windows operating system is set **NOT** to require you to login user name and password. This way the system will be able to run NV DVR program.

- **Disable Alarm**
  Deactivate the alarm at the set time temporarily.
- **Turn on Relay #**
  Active the Relay at the set time. If there are no Relays are connected, Turn on Relay # function will not display in drag down list. The Relay number will depend on how many Relays are connected.

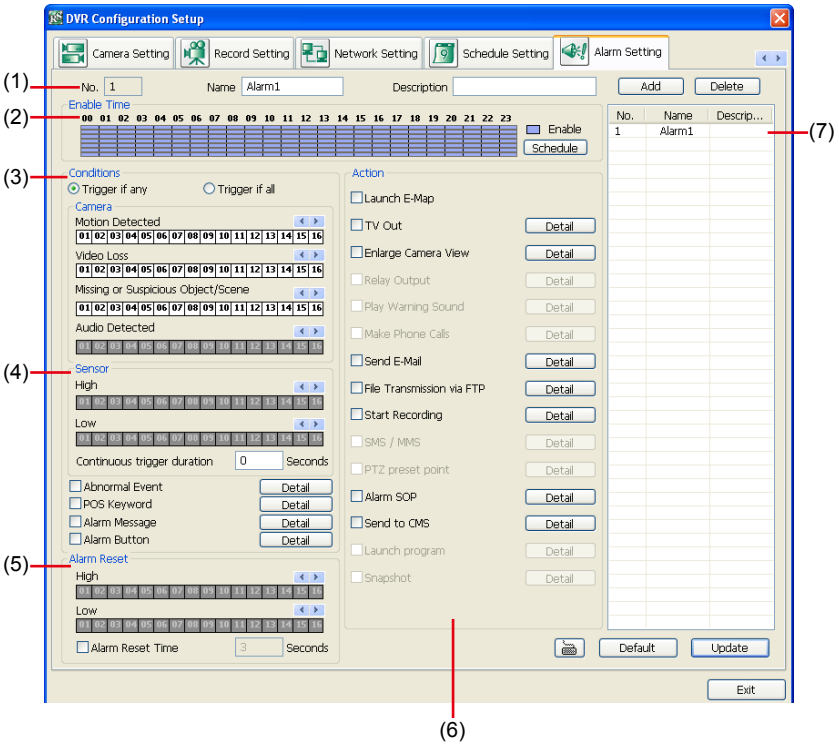
3. Specify to either schedule it weekly or one time. Click ⊙ to make a selection.
4. Click on the blocks to set the schedule. Or click **All** to select all. To store the setting, click **Save**. To remove the settings, click **Clear**.



5. To end Schedule Setting, click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

3.4.2.6 Alarm Setting

click **Add** to insert and set new alarm setting, click **Delete** to remove the selected alarm setting, click **OK** to exit and save the setting, **Cancel** to exit without saving, and **Default** to revert back to original factory setting.



To set the Alarm Setting:

1. Click **Add** to insert and set a new alarm setting. Click the items in the **(7) Alarm Setting List**, if you want to modify the alarm setting.
2. In **(1) Alarm Setting number/Name/Description**, display the selected alarm setting number in the list below. Enter alarm name and description.
3. In **(2) Enable Time**, the number from 00 to 23 represent the time in 24-hour clock. Select the time and click the block you want to activate or deactivate the alarm function. When it is deactivated the color of the block turns white.
4. In **(3) Conditions**, you can set "**Trigger if any**" to activate if it falls to one of the conditions or "**Trigger if all**" to activate if it falls to all conditions.
   - In Camera section, select and click on the camera number (01 to 16) in **Motion Detected** and **Video Loss** to set the condition for the system to alarm.
   - In **Missing and Suspicious Object Detected**, click the camera number (01 to 16) and select the certain object on the screen (right click on camera number for detailed setting)), and when the certain object is missing or doubtful, the system will alarm. (see also ***Chapter 5.9.12 of NV user's manual***) In **Scene Change**, when the camera has been moved, the system will alarm, too.
   - In **Voice Detection**, click the camera number (01 to 16) to the system to alarm when detect the abnormal voice.
5. In **(4) Sensor**, select and click on the sensor number (use ◀ and ▶ to select the sensor) to set the condition for the system to alarm. If the sensor normal status is high, set the sensor condition to

low .

- **Continue trigger duration:** Set a time period for system to send out the alarm when sensor has been trigger and stay in the same status for a period.
- Enable/disable the **Abnormal Event** check box, to set the condition of the event for system to alarm.
  - **Normal Reboot:** when the DVR system reboot without abnormal condition, the system will send out the alarm message.
  - **Abnormal Reboot:** when the DVR system reboot in irregular condition, the system will send out the alarm message.
  - **Recording is switched off:** when the recording has been stopped, the system will send out the alarm message.
  - **Network is switched off:** when the network connection of DVR system is lost, the system will send out the alarm message.
  - **Hard Disk failed:** when the hard disk can't work normally, the system will send out the alarm message.
  - **Temperature:** set a temperature limited of system for system to alarm. When DVR system temperature is over the temperature limited, the system will send out the alarm.

    Temperature setting only supports on NV6000 Express card.

  - **Illegal Entry:** any objects move between selected regions which user has set up in **Object Counting** section (see also ***Chapter 5.2.1 of NV user's manual***), the system will send out the alarm. Select the entry (object moves from region 1 to 2 or from region 2 to 1) and camera for system alarm detection.
- Enable/disable the **POS Keyword** check box, to scan the data from the POS if it matches the keyword (see also Chapter 5.9.10).
- Enable/disable the **Alarm Message** check box, to active with external alarm message by your own program. For the detail configuration, please contact the local reseller.
- Enable/disable the **Alarm Button** check box, to active manual alarm function (see also ***Chapter 4.3#(17) of NV user's manua***l). To define alarm message of manually alarm trigger. Click alarm button and select the alarm button **#** and fill in the description of alarm button.

6. In **(5) Alarm Reset**, click the camera number (use ◀ and ▶ to select the alarm) to set the reset condition of alarm. Once alarm is reset, all alarm action will stop at the moment. If the sensor normal status is high, set the sensor condition to low.
   - **Alarm Reset Time:** Set a time for the alarm auto reset. When an alarm happen such as motion detected and video loss, the alarm will reset at the alarm reset time.
7. In **(6) Action**, you may now set the alarm action for the system to perform when the alarm condition is activated.
   - **Launch E-Map**
     Display mini Emap screen.
   - **TV Out**
     Switch to only display the video on TV from where the alarm is activated.
     a. Select the camera from drop down list to specify which camera video to be displayed on TV when the alarm is triggered.
        i. **Alarm Camera:** when a channel has an alarm occurred, and then, the channel video that has an alarm occurred will be displayed on TV.
        ii. **Camera #(1~32):** select the camera channel video that wants to be displayed on TV when an alarm is activated.
     b. **Retrieve time:** set the waiting duration before system switching back to original display mode on TV automatically. If the retrieve time is un-mark, the alarm video will keep displaying until user switch back to normal display mode manually. The retrieve time range is 3~ 600 seconds.
   - **Enlarge Camera View**
     Switch to only display video in Preview/Advanced mode from where the alarm is activated.

a. Select the camera from drop down list to specify which camera video to be enlarged on screen when the alarm is triggered.

iii. **Alarm Camera:** when a channel has an alarm occurred, and then, the channel video that has an alarm occurred will be enlarged on screen.

iv. **Camera # (1~32):** the selected channel video that will be enlarged on screen when an alarm is activated.

b. **Retrieve time:** set the waiting duration before system switching back to original Preview mode. If the retrieve time is un-mark, the alarm video will keep enlarging until user switch back to Preview mode manually. The retrieve time range is 3~ 600 seconds.

- **Send E-mail**

Send an electronic text message.

Beside the Send Email check box, click **Detail**. In the E-mail Setting dialog box, click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.

(1) Mail Server

Enter the SMTP Server and port. If your e-mail system requires user identification, enable **Authentication** check box and enter User ID and Password.

(2) Mail

To check if it is working, click **Test Account** button.

From: Enter the sender e-mail address.

To and CC: Enter the recipient email address and separate it with comma or a semicolon (;).

Subject: Enter the message title.

Message: Type the message.

(3) Email Notice Setting

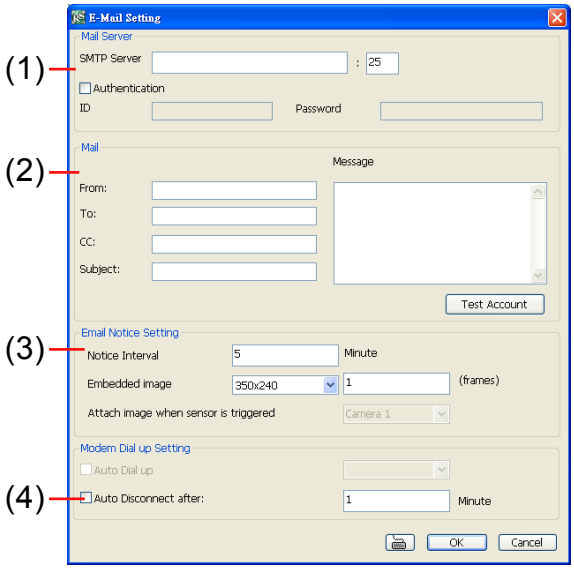
– **Notice Interval:** Set the period of time before it sends another e-mail notice.

– **Embedded image** **:** Select the image size and set the number of frames.

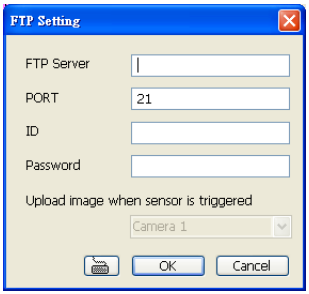
– **Attach image when sensor is triggered:** When the sensor is triggered, the system will capture the image and send the image to the certain e-mail address with the alarm message.

(4) Modem Dial up Setting

User may set the time to disconnect automatically, just enable the **Auto Disconnect after** check box and set time.

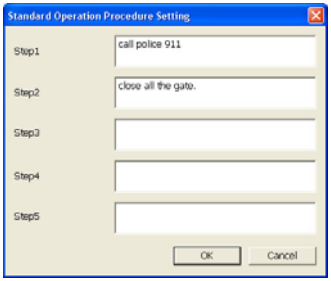


- **File Transmission via FTP**
  Upload file to remote computer thru FTP (File Transfer Protocol).
  1. Beside the File Transmission via FTP check box, click **Detail**.
  2. In the FTP Setting dialog box, enter the FTP IP, port, user ID and password.
  3. Click **OK** to exit and save the setting and **Cancel** to exit without saving the setting.



- **Start Recording**
  Record the video from the selected camera.
  1. Beside the Start Recording check box, click **Detail**.
  2. In the Alarm Recording Setting dialog box, select the camera to enable/disable video recording. Enable **All** to select all cameras.
  3. In the Frame Rate selection, select **As Setting** to record the number of frames based on the Recording Setting or **Max** to record the maximum of frames based on the available speed.
  4. In the Stop Recording after text box, set the number in second for the program to continue recording after the alarm has ended.
  5. Click **OK** to accept the new settings and **Cancel** to exit without saving.

- **Alarm SOP (Standard Operation Procedure)**
  List the instructions to inform the person of what to do when the alarm is activated.
  Beside the Alarm SOP check box, click **Detail**. In the step text boxes, type the standard protocol when the alarm is activated. When the alarm is activated, the Standard Operation Procedure dialog box will appear. Just click **Next** to see the next instruction, **Back** to see the previous instruction, **Finish** to end and **Abort** to terminate.

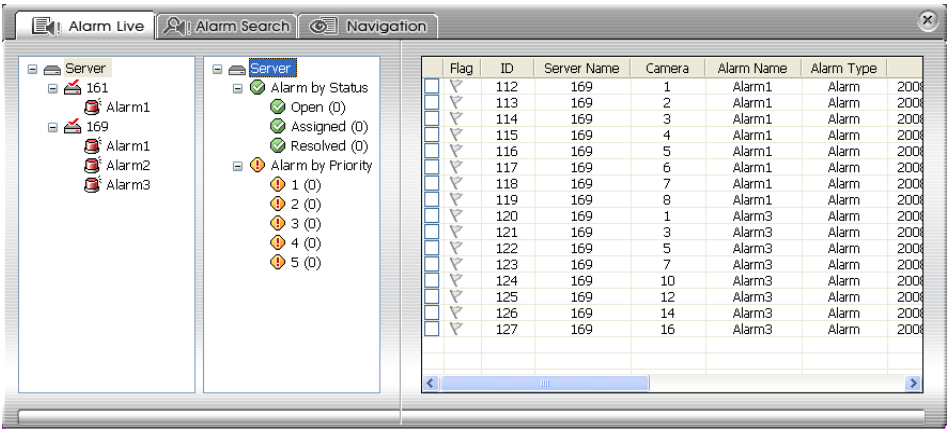


- **Send to CMS (Central Management System)**
  Enable/disable the selected camera to send video to CMS when the alarm is activated. Beside the Send to CMS check box, click **Detail**. In the CMS Setting, select the camera to enable/disable sending the video to CMS. Enable **All** to select all cameras. Then, click **OK** to accept the new settings and **Cancel** to exit without saving.

3.5 Using the Alarm Center

User can manage live alarm event, searching the alarm event, and navigate relate parameters of monitored DVRs, cameras, and alarm filters.

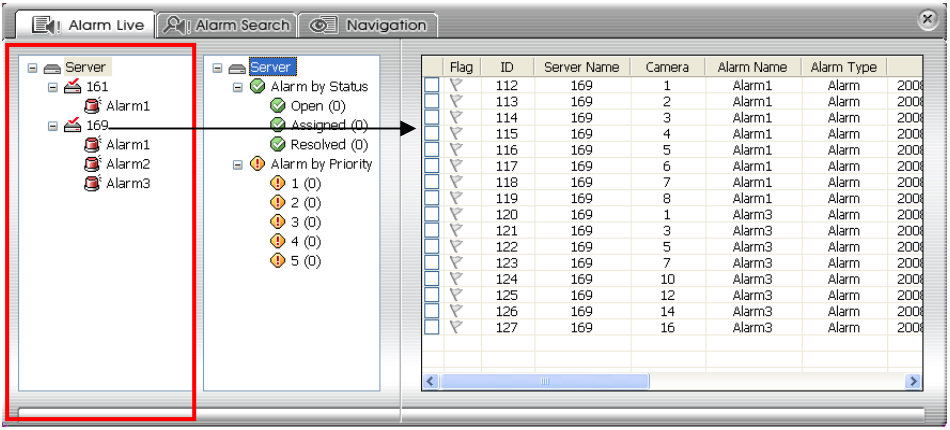
Only **CMS GOLD** version supports full functions of Alarm Center.



3.5.1 To Manage Live Alarm Event

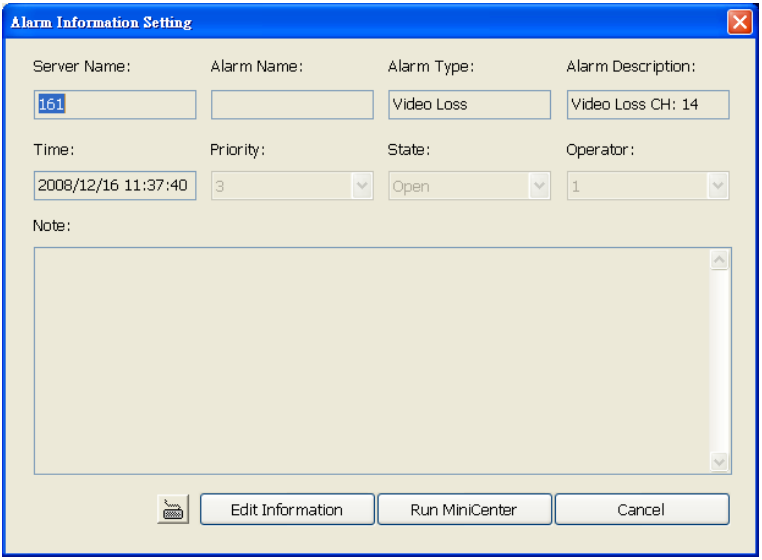
User can select the alarm to assign to different operator, change the priority of alarm, and change status of alarm.

1. Click **Alarm Center**.
2. Select **Alarm Live** tab.
3. Select the DVR or expand the alarm tree and select the alarm from left column of Alarm Live window.

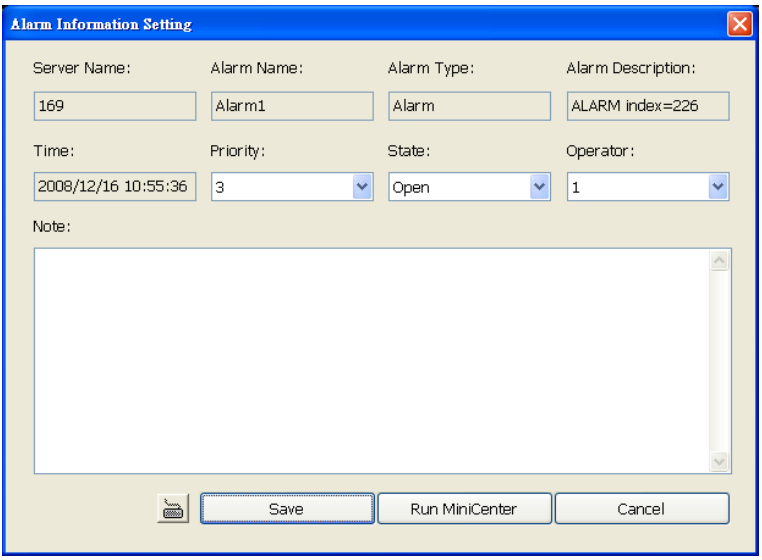


4. User should see all alarm events of selected the DVR or alarm.
5. To mark the alarm event, click check box.
6. Double-click on the alarm that user wants to manage. User should see the Alarm Information

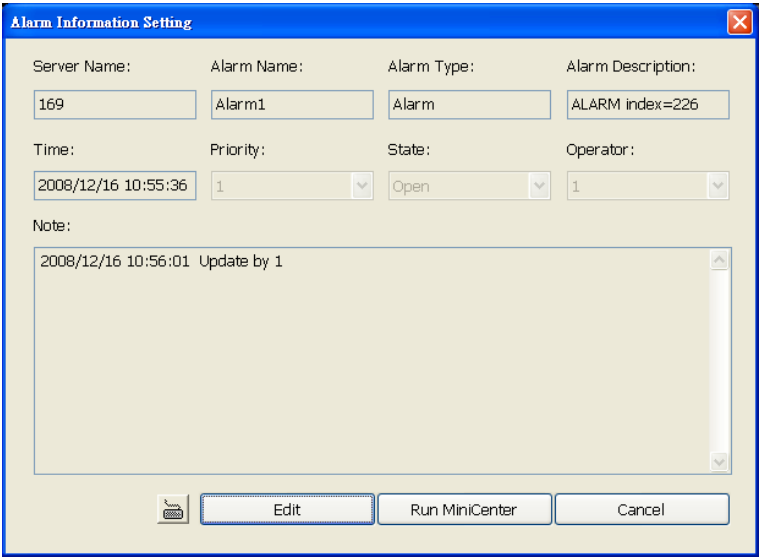
Setting window show up.



7. Click **Edit Information** to edit the alarm.

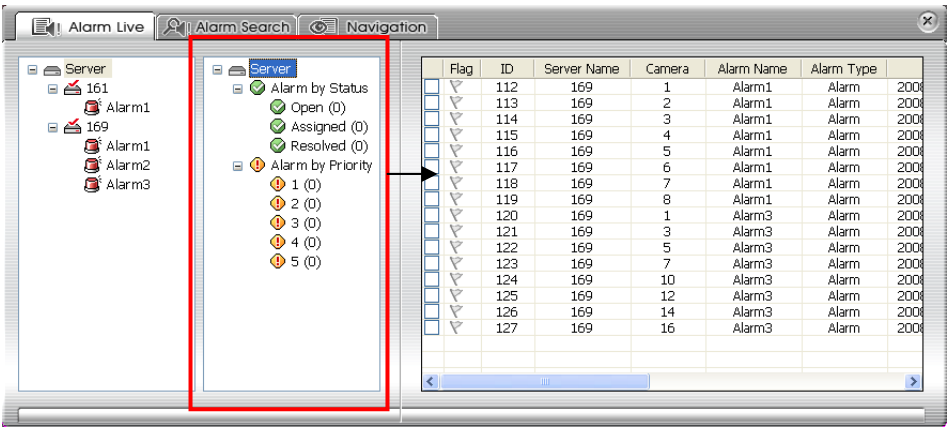


8. User can change **Priority**, **State**, and **Operator** of alarm. To enter the description or memo on **Note** column. And then, click **Save** to save the change.



9. To exit, click **Cancel**.
10. Click **Run Minicenter** will call out Minicenter window(see also Chapter 3.4)
11. User can view alarm events by status or priority. Select the status or priority of alarm event from the middle column of Alarm Live window and the result will be display on the right side column.

The priority of alarm event is set on remote DVR server. User is allowed to customize the priority of alarm event that CMS system has received and all re-assigned action will be recorded on CMS system.

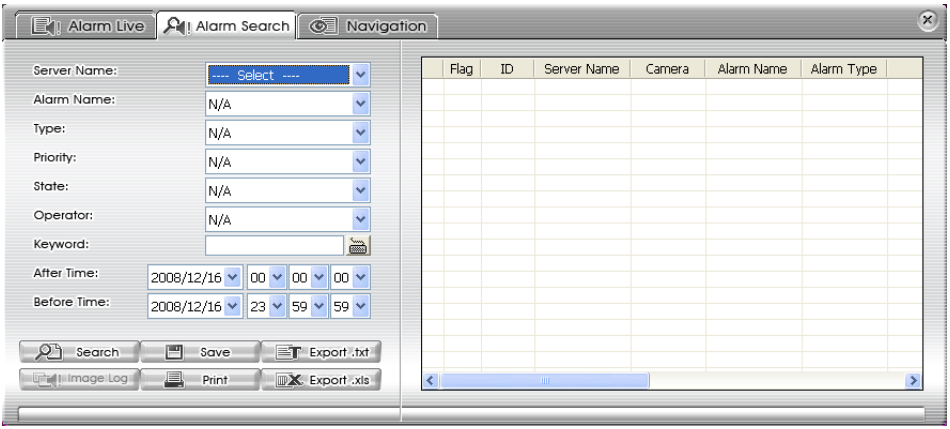


12. To manage the alarm event, follow the above steps 6 to 10.

3.5.2 To Search the Alarm Event

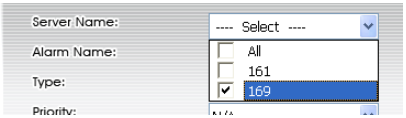
User can search the alarm event by the conditions.

Alarm Search will be available when USB Dongle is installed (**CMS GOLD** version).

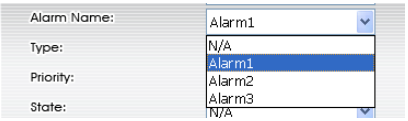


Set the follow conditions to search the wanted alarm events.

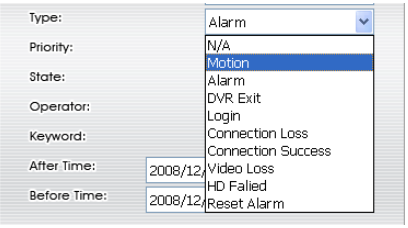
- **Server Name:** select the DVR or select **All**.



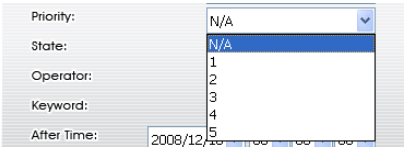
- **Alarm Name:** select the alarm that wants to search.



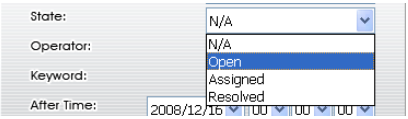
- **Type:** select the alarm condition (Motion, Alarm, DVR Exit, Login, Connection Loss, Connection Success, Video Loss, HD Failed, and Reset Alarm)that wants to search.



- **Priority:** select the priority level of alarm that wants to search.

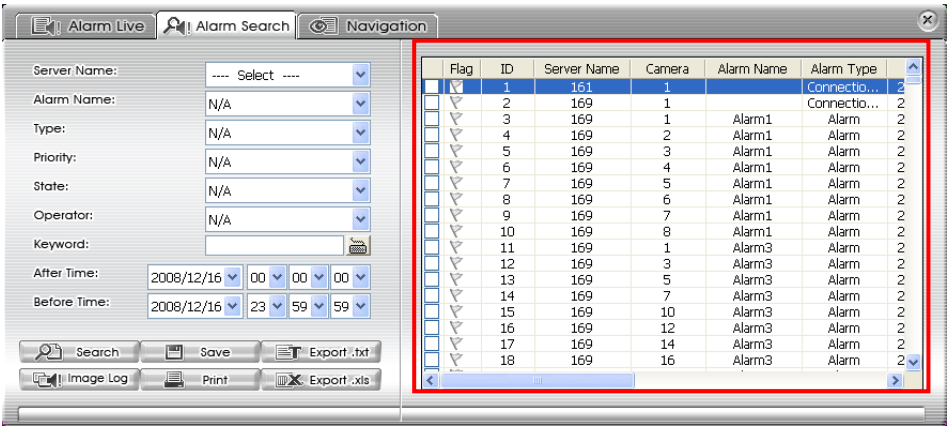


- **Status:** select the alarm status that wants to search



- **Operator:** select the operator that wants to search
- **Keyword:** enter the specific word string to search.
- **After/Before Time:** set a specific time period to search.

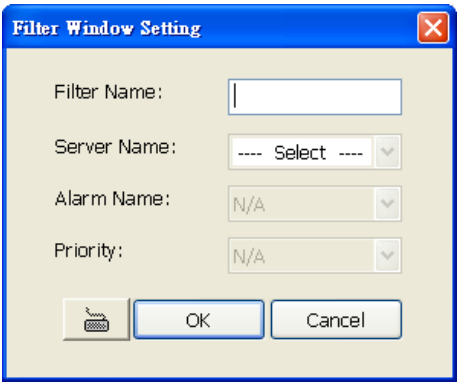
When the search conditions are set, click **Search** to start searching. If user doesn't set any conditions, the system still will start search when click **Search** button. And the, result will be all alarm events. The search result will display on the right column of Alarm Search window.



User can select the alarm to assign to different operator, change the priority of alarm, and change status of alarm (see also Chapter 3.5.1).

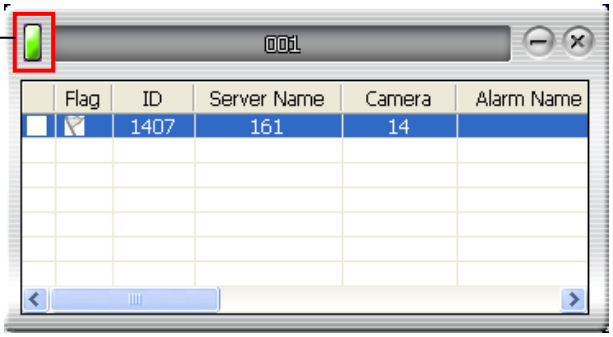
User can create a filter that is based on the conditions of search. Click **Save**, the **Filter Window Setting** will show up. Enter a name for the filter and click **OK**.

User also can create a filter in **Navigation** section(see also Chapter 3.5.3)

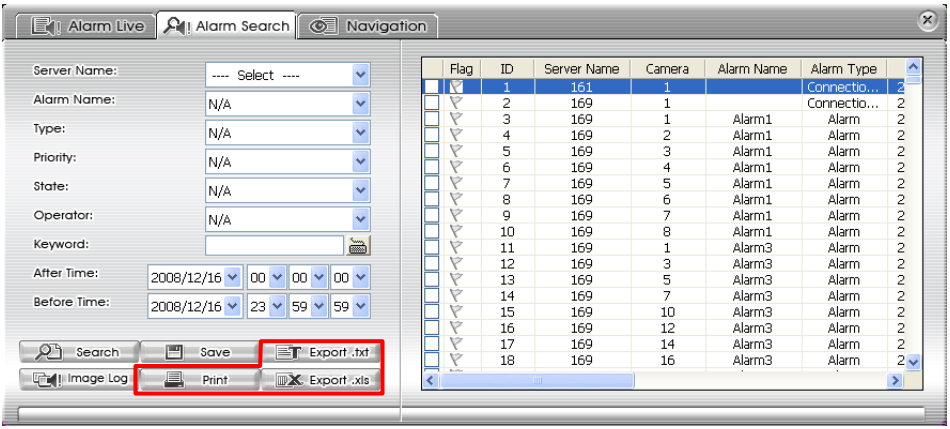


When CMS system receives same alarm event, filter will flash in red light. To minimize the filter click, click to close the filter.

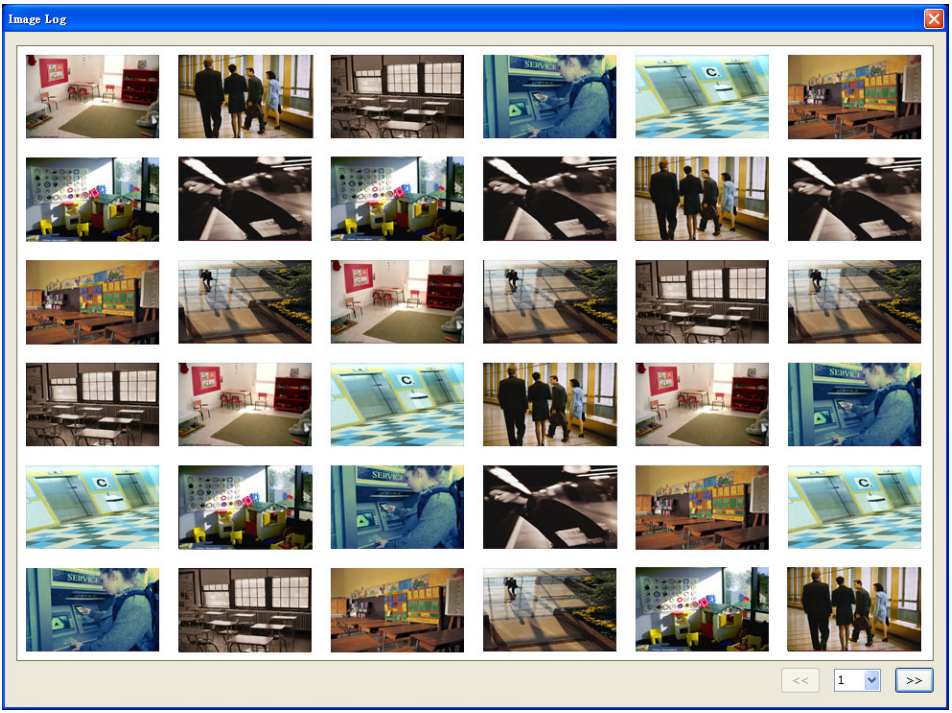
When receive the alarm, it will turn to red and flash.



The result of search can be print by clicking **Print** button. Also, the search result can be save as in *.txt and *.xls format by clicking **Export .txt** or **Export .xls** button.



Clicking **Image Log** button to view alarm image. The image log window will show up. Double-click on the image log will call out the MiniCenter window (see also Chapter 3.4). Click **<<** and **>>** to go previous and next page.



3.5.3 To Navigate the Alarm Information

User can view information of DVR, alarm, filter, and user.

Navigation function will be available when USB Dongle is installed (**CMS GOLD** version).

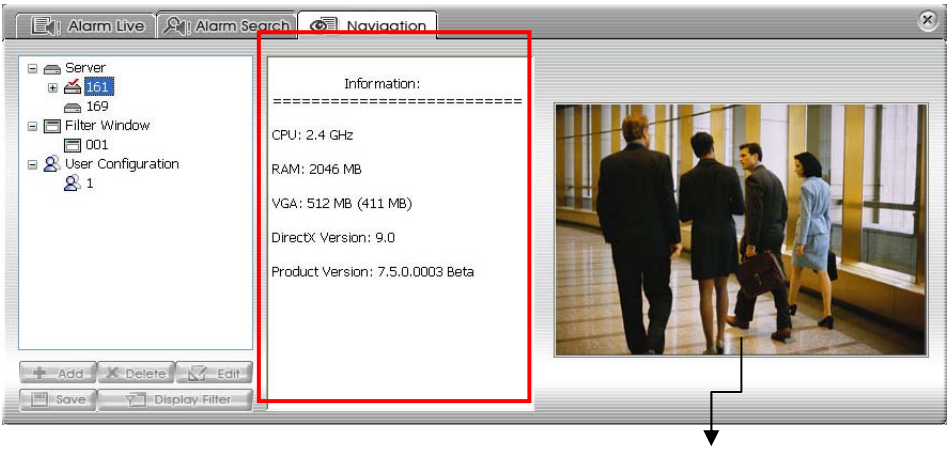
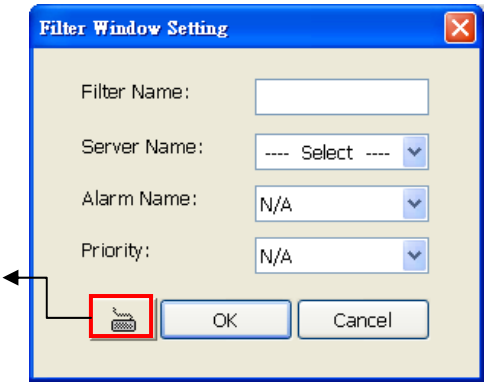


Image of the selected alarm

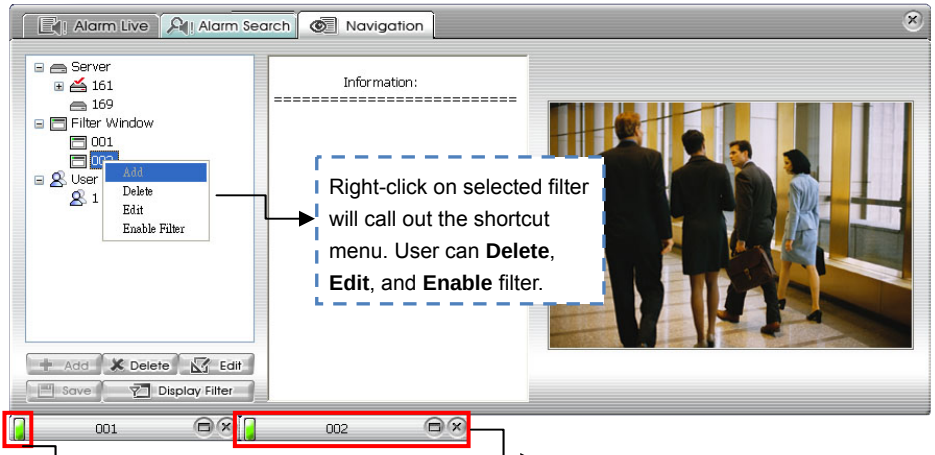
Select the DVR, alarm, filter or user to view. The information will be display on middle column and the image of alarm will display on right side column.

The filter window display the current existing filter, user can add more filter by clicking **Add**. In Filter Window Setting, enter the name of filter, select the DVR, alarm, and priority of alarm.



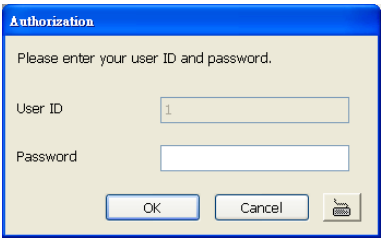
Click to call out virtual keyboard if the keyboard is not available.

To delete the filter, select the filter and click **Delete.** To modify the filter, click **Edit**. Select the filter and click **Display filter** can call out the filter to view if the filter is close.



Chapter 4 Customizing the CMS System

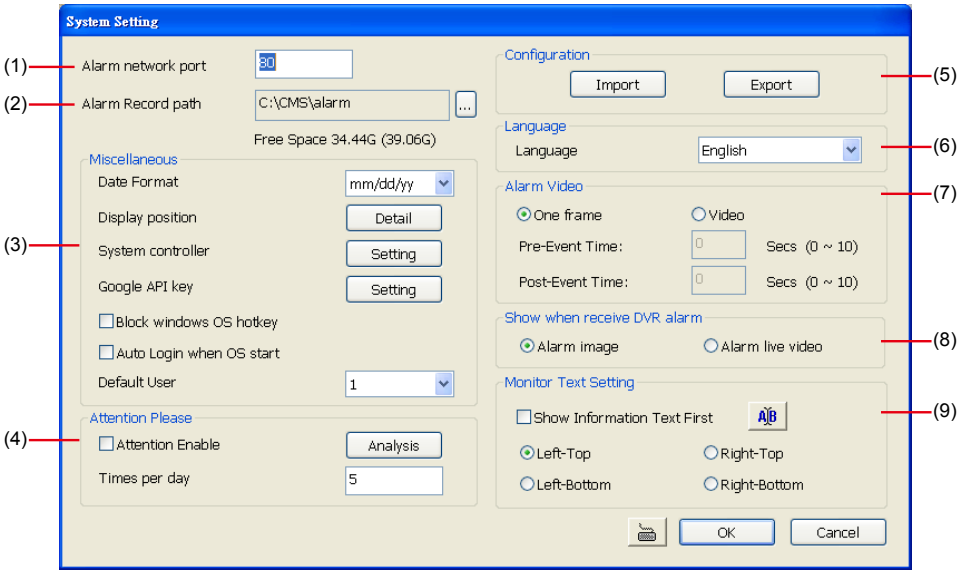
In the CMS application, click the button to customize the CMS system. In the Authorization dialog box, enter the administrator User ID and Password.



When the CMS configuration setup selection appears, select and click the buttons you want to change the setting.

4.1 System Setting

In the System Setting dialog box, click **OK** to accept and start to reload the new setting, and **Cancel** to exit without saving.



(1) Alarm Network Port

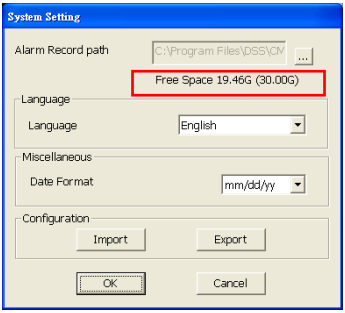
Select a port for receiving alarm video from DVR server. Any network service port can be assigned as long as the port doesn't conflict with current network service.

(2) Alarm Record Path

By default, the alarm folder is automatically generated to where the CMS application is installed and for saving the alarm clip videos and log files. The suggested hard disk capacity for storing the alarm video is 30GB.

1. Click **Setup**.
2. In the Authorization dialog box, enter the administrator User ID and Password.
3. Click **System** > ... . In the Browse For Folder dialog box, locate where you want to store the alarm video clip. Click **Make New Folder** to create new folder, **OK** to accept and **Cancel** to exit.

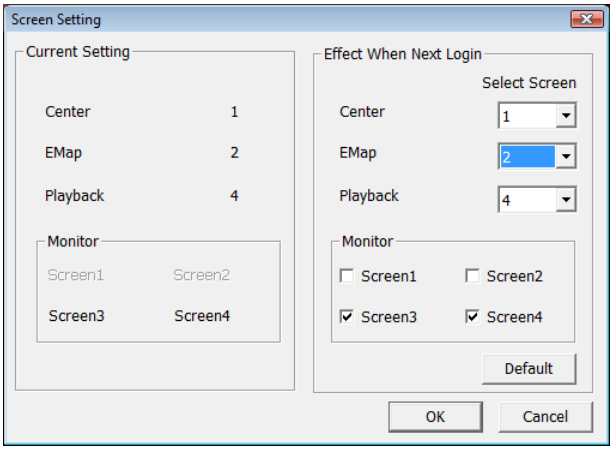
4. The text below the Alarm Record path text box shows the hard disk free space and total space in parenthesis.



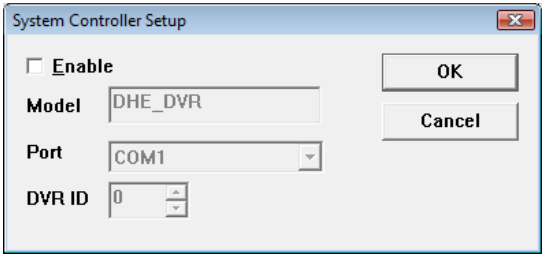
5. In the System Setting dialog box, click **OK** to start reloading the new setting and **Cancel** to exit without saving the new setting.

(3) Miscellaneous

- **Date Format :** Select from different date formats
  1. Click **Setup**.
  2. In the Authorization dialog box, enter the administrator User ID and Password.
  3. Click **System**.
  4. In the Date Format drop down list, click and select the style.
  5. In the System Setting dialog box, click **OK** to accept the new setting and **Cancel** to exit without saving the new setting.
- **Display position: CMS** system supports up to 4 monitors, users are allowed to customize the display position that to decide the Center, Emap, Monitor, or Playback to be displayed on which monitor screen. Click **Detail** to select the display screen setting. The new screen display setting will be effect at next time login.



- **System Controller** – To configure the parameters that is for communicating with the System Controller (an optional accessory). Also please refer to Chapter 4.1.1 or ***user manual of the System Controller.*** Click **Setting** to configure system controller.



Enable – Mark the check box to enable the System Controller function.

Model – Select model of the System Controller.

Port – Select the com port that is connected with the System Controller. Click **Setup** to configure com port value. The com port value is shown in below table:

Baud rate	9600
Data bits	8
Parity	No
Stop bit	1
Flow control	No

ID – Set an ID for DVR server (0~99). This ID is a key for communicating between the System Controller and the DVR server.

When the DVR server ID is X, the DVR server can be controlled by System Controller irrespective of the DVR ID that is selected in System Controller.

- **Google API Key:** Enter the Google API Key that applied from Google webpage(see also Chapter 4.1.2). Click **Detail** and enter API key that will allow user to use **Google map** to search the specific location and save the founded location as a map image (see also Chapter 4.6.1.1).

The Google map function only supported in CM3000 Gold version.

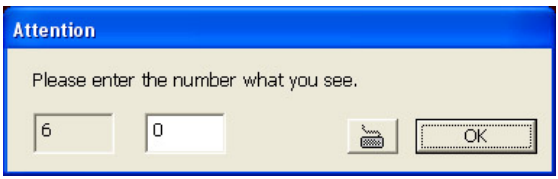
- **Block window OS hotkey:** Deactivate the **[Ctrl-Alt-Del]** and **[Windows]** keyboard key functions.
- **Auto Login when OS start:** Execute the CMS when the operating system is started.

(4) Configuration

Import / Export the CMS system configuration

(5) Attention Please

Check the attentiveness of the person who is monitoring the system. You may set the number of times the Attention dialog box to appear in a day in **Times per day** text box. To check the graph on how fast the person response, click **Analysis**. When this feature is enabled, the **Attention** dialog box would appear. The person who is monitoring the system must enter the same number that appears from the left box at the right text box and then click **OK**.



(6) Language

Customize the system to display the tool tips and dialogs based on the selected language. By default the set language is in English.

1. Click **Setup**.
2. In the Authorization dialog box, enter the administrator User ID and Password.
3. Click **System**.
4. In the Language drop down list, click and select the language.

(7) Alarm Video

Set up the video transition when alarm occurs.

- **One frame:** a single video frame will be transmitted when alarm occurs.
- **Pre/Post Event Time:** Set the video duration before and after the event to send

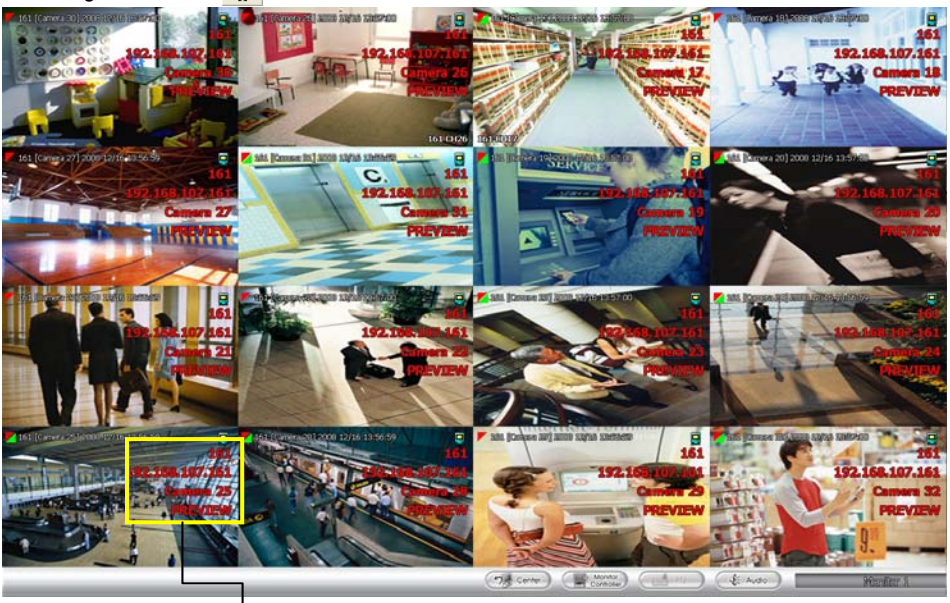
(8) Show when receive DVR alarm

Select the type of received alarm format – **Alarm image** or **Alarm Live Video**.

- **Alarm image:** Only display alarm image and no live video previewing.
- **Alarm Live Video:** User can view alarm live video.

(9) Monitor Text Setting

Enable/disable the camera information display and display position on the monitor screen. To configure font, click .



- The camera information will be display as user has configured.
- User can press **F1** to disable/enable camera information display.

4.1.1 Using the System Controller

4.1.1.1 General

Function	Description
	Exit the current mode.
	Switch control to monitor screen. Press + screen number (~)
	Switch control to E-map screen
	Switch control to Center screen
	Switch to view Monitor screens
	To call out Playback application
	Number button 1
	Number button 2
	Number button 3
	Number button 4
	Number button 5
	Number button 6
	Number button 7
	Number button 8
	Number button 9

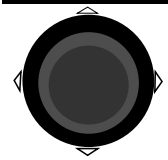
Function	Description
	Number Button 0
	An enter key for confirming a action

4.1.1.2 Center Control

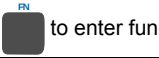
Function	Description
	Switch control to E-map screen
	Switch to view Monitor screens
	To reset alarm status
	To call out Playback application
	Keyboard Number button 1
	Keyboard Number button 2
	Keyboard Number button 3
	Keyboard Number button 4
	Keyboard Number button 5
	Keyboard Number button 6
	Keyboard Number button 7
	Keyboard Number button 8
	Keyboard Number button 9
	Keyboard Number button 0

Function	Description	
ENTER	An enter key for confirming a action	

4.1.1.3 Playback Mode

Function	Description	
	△UP	Go up to the selection (DVR server, playback mode, playback time and playback date)
		Go to previous frame while playback
	▽ DOWN	Go down to the selection (DVR server, playback mode, playback time and playback date)
		Go to next frame while playback
	◁ LEFT /	Use to select the playback time and date
		Wind back the recorded video file while playback
	▷ RIGHT	Use to select the playback time and date
		Play the recorded video file at the speed of 2x, 4x, 8x, 16x or 32x
	Turn Right: Play the record video file at the fast speed	
	Turn Left: Play the recorded video file at the speed of 1/2X, 1/4X, or 1/8X	
I◀ / ESC	Move to the beginning of the recorded video file	
◀ / TAB	Wind back the recorded video file	
▶ / .	Play the recorded video file	
II / ␣	Pause playing the recorded video file	
▶I / ←	Go to the end of the recorded video file in Playback mode	
ENTER	An enter key for confirming a action	
1 / ■	channel 1	
	Switch to a 1 channel view mode	
2 / ■	channel 2	
	Switch to a 4-split screen mode	
3 / ■	channel 3	
	Switch to a 9-split screen mode	

Function	Description
4 /	channel 4
	Switch to a 16-split screen mode
5 /	channel 5
	Switch to a 8-split screen mode
6 /	channel 6
	Switch to a 13-split screen mode
7 /	channel 7
	Switch to a 32-split screen mode
8	channel 8
9	Channel 9
0	Number Button 0

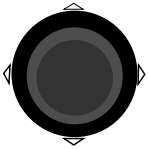
- To select the channel 1~9, press 0 + channel number (1~9) or press channel (1~9) and wait about 1 second.
- To select channel 10~32, Press **2** digital channel numbers. For example: channel 10, press 1 + 0.
- To switch to split screen mode, please press  to enter function mode first.

	Capture and save the screen shot either in *.jpg or *.bmp format in Playback mode
	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file in Playback. Move Joystick to left and right to select day and up and down to select hour.
/A-B	Keep a portion of the recorded video in Playback mode
	Save the segmented file in *.mpg, *.avi, or *.dvr format in Playback mode
	Exit from Playback application

4.1.1.4 E-Map Control

Function	Description
	To exit from E-Map screen / DVR watch window
	Back up last level of E-Map
	Channel 1 in DVR watch
	Channel 2 in DVR watch
	Channel 3 in DVR watch
	Channel 4 in DVR watch
	Channel 5 in DVR watch
	Channel 6 in DVR watch
	Channel 7 in DVR watch
	Channel 8 in DVR watch
	Channel 9 in DVR watch
	Number Button 0

- To select the channel 1~9, press 0 + channel number (1~9) or press channel (1~9) and wait about 1 second.
- To select channel 10~32, Press **2** digital channel numbers. For example: channel 10, press 1 + 0.
- Press (ESC) to back to split mode from single channel view mode.

	**◁ Left / ▷ Right △UP / ▽ DOWN**	To select different DVR server on the E-map to view or select next level of E-map to view. To confirm the selection, press (enter) button, and then, the DVR watch window will show up or the next E-map will show up.

4.1.1.5 Monitor Control

Function	Description
	To exit from Monitor screen
	Channel 1
	Channel 2
	Channel 3
	Channel 4
	Channel 5
	Channel 6
	Channel 7
	Channel 8
	Channel 9
	Number Button 0

- To select the channel 1~9, press 0 + channel number (1~9) or press channel (1~9) and wait about 1 second.
- To select channel 10~32, Press **2** digital channel numbers. For example: channel 10, press 1 + 0.
- Press (ESC) to back to split mode from single channel view mode.

+ 3 digital numbers can switch to different monitor set. CMS system can support 128 monitor set. User can press + monitor set number (001 ~ 128), and then, the monitor screen will show the entered monitor set.

4.1.1.6 PTZ Control

Function	Description
	Adjust the focus in manually
	To speed up the movement of camera
	Adjust the focus out manually
	To speed down the movement of camera
	Move to PTZ preset position

- Move to PTZ preset position 1~9, press + number button (1~9) and wait about 1 second.
- Move to PTZ preset position 10~16, Press + **2** digital numbers button. For example: preset position number 10, press + 1 + 0.
- Please press button each time before press PTZ preset position number button.

	Keyboard Number button 1
	Keyboard Number button 2
	Keyboard Number button 3
	Keyboard Number button 4
	Keyboard Number button 5
	Keyboard Number button 6
	Keyboard Number button 7
	Keyboard Number button 8

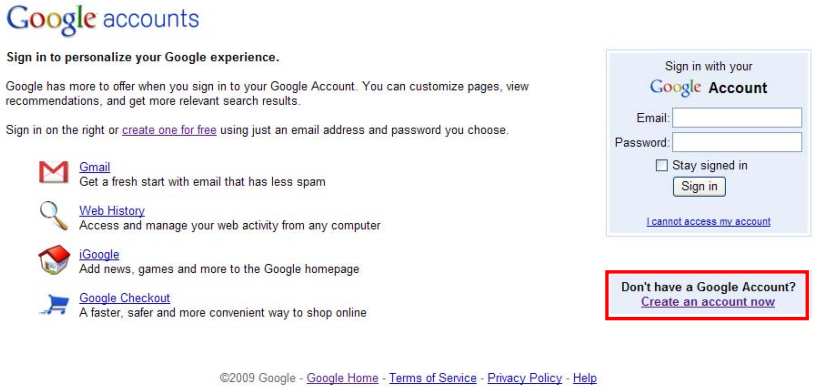
Function	Description
9	Keyboard Number button 9
0	Keyboard Number button 0
	△UP / ▽ DOWN Tilt up and down
	◁ LEFT / ▷ RIGHT Pan left and right
	Turn Right: Zoom in the image
	Turn Left: Zoom out the image

4.1.2 How to Apply a Google API Key

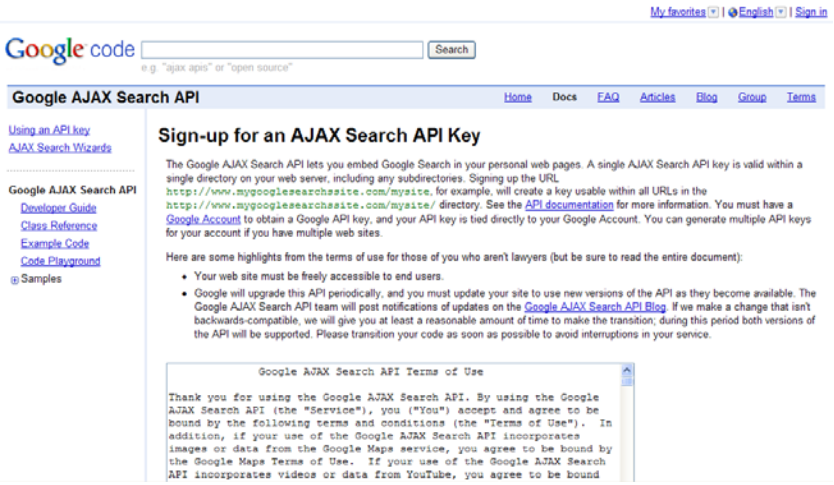
User need to apply an API key in order to use Google map function in CMS system(CM300 Gold version). Please follow the below steps to get an API key.

The Google map function only supported in CM3000 Gold version.

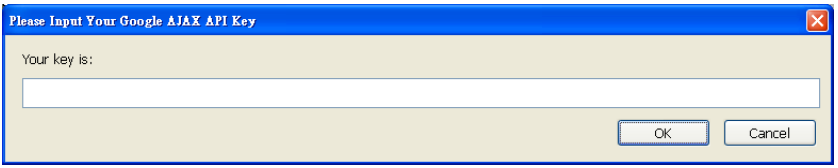
1. Go to Google webpage (www.google.com) to apply an account.
2. Click **Sing in**. If you have a Google account already, please login directly. Otherwise, click **Create an account now** to apply an account.


Google accounts
Sign in to personalize your Google experience.
Google has more to offer when you sign in to your Google Account. You can customize pages, view recommendations, and get more relevant search results.
Sign in on the right or create one for free using just an email address and password you choose.
Gmail
Get a fresh start with email that has less spam
Web History
Access and manage your web activity from any computer
iGoogle
Add news, games and more to the Google homepage
Google Checkout
A faster, safer and more convenient way to shop online
Sign in with your
Google Account
Email:
Password:
Stay signed in
Sign in
I cannot access my account
Don't have a Google Account?
Create an account now
©2009 Google - Google Home - Terms of Service - Privacy Policy - Help

3. In Create an Account page, fill in all necessary information and click **I accept**, **create my account**.
4. And then, go to the email address that you have entered when apply a Google account for verification. After verification, your Google account is ready for using.
5. Now, go to http://code.google.com/intl/en/apis/ajaxsearch/signup.html for applying an API key.
6. Please sign in first, and read the terms and conditions and accept. Click **Generate API Key**. User should get a set of API key that looks like “jdlfhsldfslkjhg” word string.


My favorites | English | Sign in
Google code
Search
e.g. "ajax apis" or "open source"
Google AJAX Search API
Home
Docs
FAQ
Articles
Blog
Group
Terms
Using an API key
AJAX Search Wizards
Google AJAX Search API
Developer Guide
Class Reference
Example Code
Code Playground
Samples
Sign-up for an AJAX Search API Key
The Google AJAX Search API lets you embed Google Search in your personal web pages. A single AJAX Search API key is valid within a single directory on your web server, including any subdirectories. Signing up the URL http://www.mygooglesearchssite.com/mysite, for example, will create a key usable within all URLs in the http://www.mygooglesearchssite.com/mysite/ directory. See the API documentation for more information. You must have a Google Account to obtain a Google API key, and your API key is tied directly to your Google Account. You can generate multiple API keys for your account if you have multiple web sites.
Here are some highlights from the terms of use for those of you who aren't lawyers (but be sure to read the entire document):
Your web site must be freely accessible to end users.
Google will upgrade this API periodically, and you must update your site to use new versions of the API as they become available. The Google AJAX Search API team will post notifications of updates on the Google AJAX Search API Blog. If we make a change that isn't backwards-compatible, we will give you at least a reasonable amount of time to make the transition; during this period both versions of the API will be supported. Please transition your code as soon as possible to avoid interruptions in your service.
Google AJAX Search API Terms of Use
Thank you for using the Google AJAX Search API. By using the Google AJAX Search API (the "Service"), you ("You") accept and agree to be bound by the following terms and conditions (the "Terms of Use"). In addition, if your use of the Google AJAX Search API incorporates images or data from the Google Maps service, you agree to be bound by the Google Maps Terms of Use. If your use of the Google AJAX Search API incorporates videos or data from YouTube, you agree to be bound

7. In CMS system, enter the API key and click **OK**.



8. How to use the Google map function, please refer to Chapter 4.1.6.1.

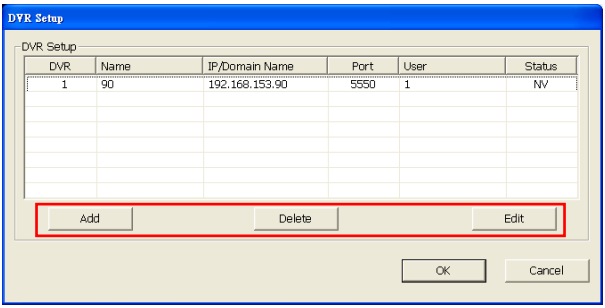
4.2 DVR Setup

Display the list of all DVR servers. User may add up to 1000 DVR servers, delete and modify the DVR setting.

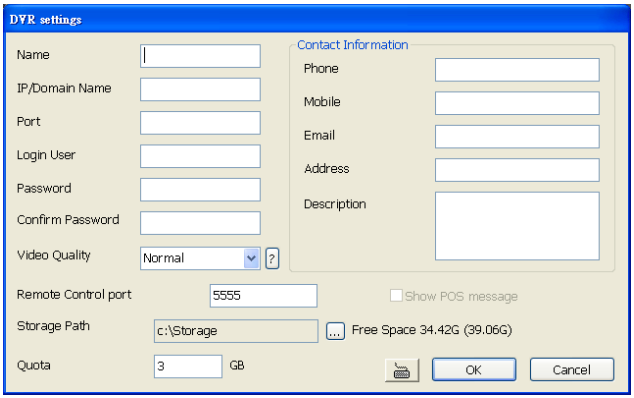
To upgrade the CMS to 1000 DVRs, please refer to Chapter 1.1)

4.2.1 To Add and Remove DVR Server

1. Click **Setup**.
2. In the Authorization dialog box, enter the administrator User ID and Password.
3. Click **DVR**.
4. In the DVR Setup section, click **Add** to insert, **Delete** to remove and **Edit** to modify DVR server setting.



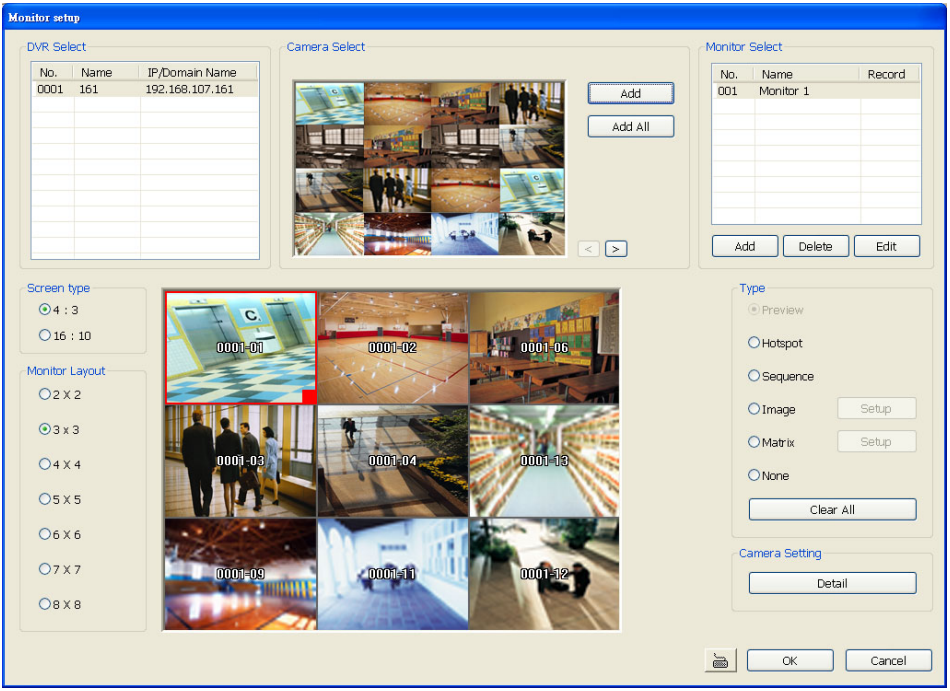
5. To continue adding a DVR, in the text box, enter the name, IP/Domain, Login User, Password, Confirm Password of the remote DVR server.
6. If necessary, fill up the contact information to let the personnel in the CMS side know whom to get in touch with when an event has occurred.
7. Select the **Video Quality** for video display on the CMS system monitor screen. The default value is **Auto**. When the video quality is high, user can enable **Show POS message** box and the POS message will also display on the CMS system monitor screen.
8. Set the **Storage Path** for saving the recorded video data of the selected cameras on the Monitor screen.
9. Set the max video recorded storage capacity of this DVR server on the CMS system server. Enter the value in **Quota**.



10. In the **DVR Setting** dialog box, click **OK** to accept the new setting and **Cancel** to exit without saving the new setting.
11. The CMS system will connect to DVR server. If the connecting time takes too long, user can click **Disconnect** button to cancel the connect action.

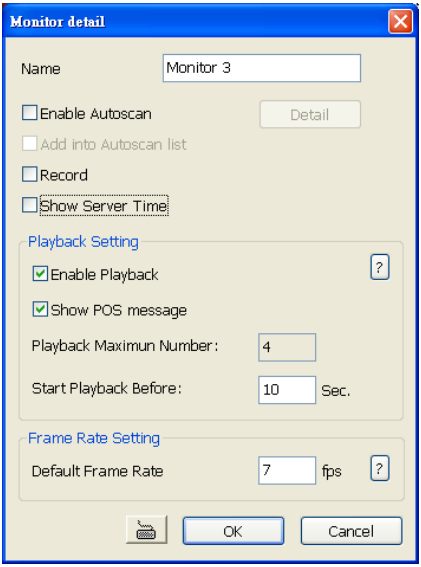
4.3 Camera Setup

Select the camera from different DVR servers in order to monitor on same screen. The selected cameras will be played on **Monitor** screen (see also Chapter 3.3).



1. Click **Setup** from CMS main interface.
2. In the Authorization dialog box, enter the administrator User ID and Password.
3. Click **Camera**.
4. Click **Add** to create a monitor set. Enter a name in **Name** column (12 characters only).
5. Mark **Enable Autoscan** and click **Detail** to select the monitor set for sequential display on the Monitor. When monitor set is an auto scan monitor set, it is no need to select any cameras for monitoring.
6. Enable **Add into Autoscan** list will make the monitor set became one of auto scan list.
7. To record the cameras video, mark the **Record** box. Otherwise, the cameras video will not be saved on the CMS system hard disk.
8. Mark **Show Server Time** to display the time on Monitor screen.
9. If user wants to playback the recorded video of monitor set, mark **Enable Playback** and enter the time (sec.) in **Start Playback Before** that is when start playback will start from the present time backward the time user has setup. To display the POS information on monitor screen, mark **Show POS message**. User can set the camera transmitting **Frame Rate**, but the real transmitting frame rate depends on camera setting.
10. Click **OK** to save the setting.

CMS only supports two monitor set for recording.

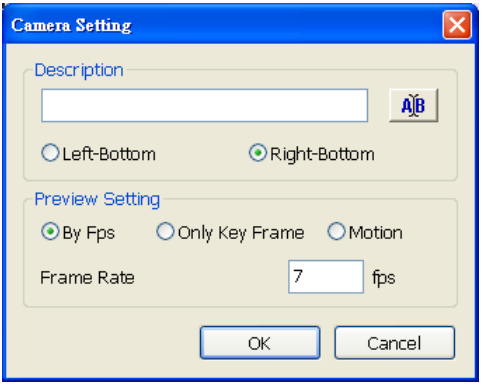


11. After the Monitor set has been created, select the DVR server. And then the cameras of the DVR server will display on the **Camera Select** window. User can combines different cameras from different DVR servers as a monitor set. And all cameras can be selected by different Monitor set repeat.
12. User can depend on the monitor size to select the screen type – **4:3** (regular screen monitor) or **16:10** (width screen monitor). The 4:3 and 16:10 screen type support different monitor layout.
13. Select the camera that user wants to add, and then click **Add** button. The selected camera will be added to **Monitor Layout** window. User can add up to 64 cameras in 4:3 screen type and 80 cameras in 16:10 screen type. To remove the camera from the **Monitor Layout** window, select the camera and click **Delete** button. To delete all cameras, click **Clear All** button. User can enter a description for a channel.

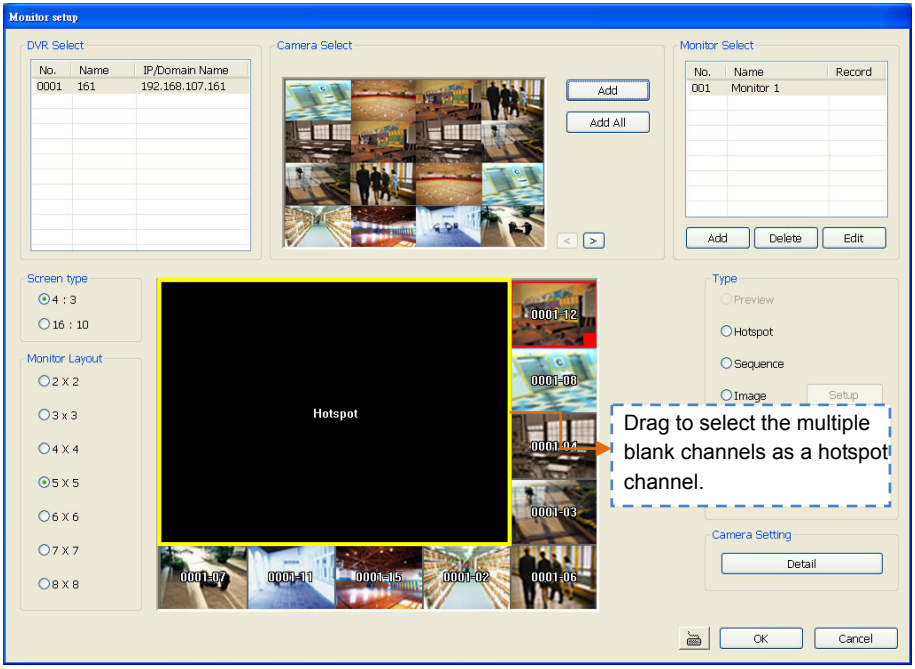
User can drag the camera channel to Monitor Layout window without using **Add** button.

---

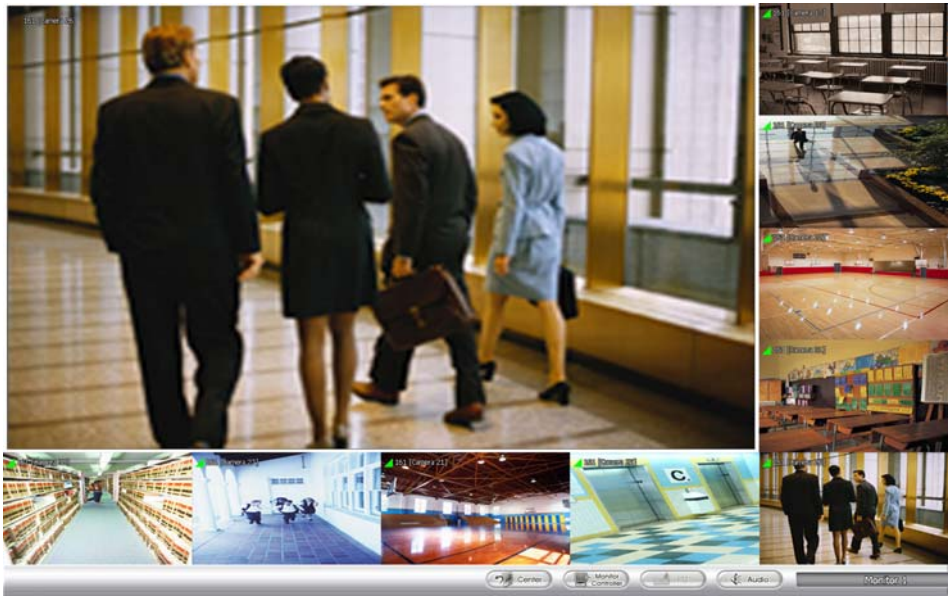
14. In monitor set, each camera can be configured the name, transmitting type, and frame rate. Select the camera in monitor layout window and click **Detail** button of **Camera Setting**. And then, enter the name for the camera and select display position of the camera name on monitor screen; click to change the font. Select the transmitting type by click the radio button – **By Fps**, **Only Key Frame**, or **Motion**. And then, set the transmitting frame rate of the camera in **Frame Rate** column.



15. In Monitor Layout window, user also can set the channel for specific type functions instead of added cameras from DVR servers. In Monitor Layout window, select one of blank channel (NONE) and click the radio button of type (Hotspot, Sequence, Matrix, Image, or None).
    - **Hotspot:** To set the channel for displaying selected camera channel video. Click-and-drag to select multiple channels as a hotspot channel area.



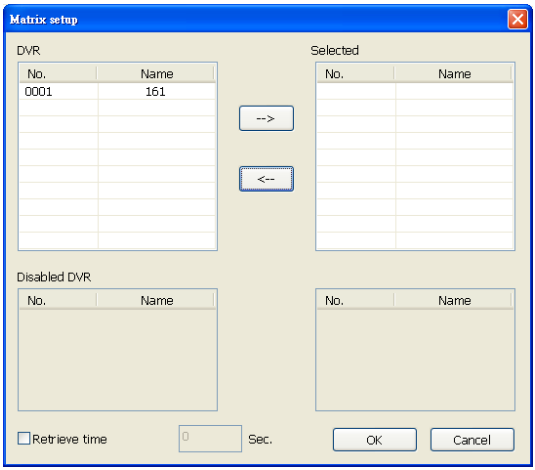
In the Monitor screen, user can right-click and drag the camera to the hotspot channel for enlarge viewing.



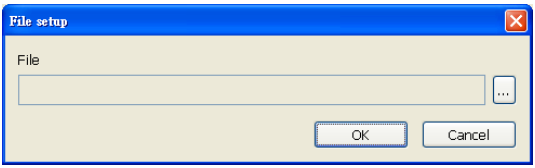
- **Sequence:** Set the selected channel to automatically switch to display all camera channels in cycle.

- **Matrix:** set the selected channel to receive and display the alarm event from selected DVR servers. Click **Setup** to select the DVR servers. Enable the **Retrieve time** to set a period time (0 ~ 255 sec) for alarm event to display. If the retrieve time doesn't enable, the alarm event will display on screen until next alarm event come in.

  On the DVR site, user need to enable and configure the matrix to send to CMS (please refer to ***Alarm Setting*** of NV/SA/NX user's manual).



- **Image:** To insert an image on selected channel. The image supports *.bmp and *.jpg format. Click **Setup** and browse where the image located is.

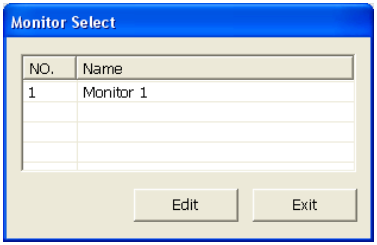


16. Click **OK** to save the setup. To exit without saving, click **Cancel**.
17. To delete the monitor set, select the monitor set in **Monitor Select** window and click **Delete** button.
18. To modify the monitor set, select the monitor set in **Monitor Select** window and click **Edit** button.
19. To monitor the monitor set, please see Chapter 3.3.

4.4 Schedule Setup

Schedule to record or backup of all the cameras either weekly or one time.

1. Select the Monitor set for scheduling.

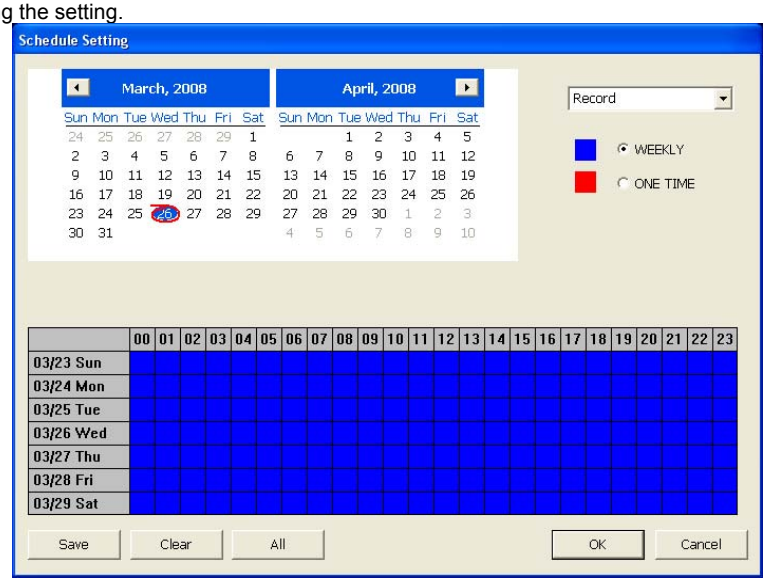


The Monitor set can be scheduled only when the recoding is enabling.

2. Select the date in the calendar. Use ◂ and ▸ buttons to shift the calendar to the left or right.
3. Select the condition you want to schedule in the drop down list.
   - **Record**
     Activate all the cameras to start video recording at the set time based on the Recording setting
   - **Backup**
     Save another copy of all the data at the set time and specified backup path. DVR automatically updates and only backup the data that are not yet included in the archive. To assign backup path, click ...

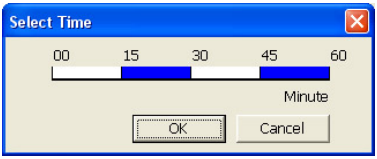
Make sure the backup folder and storage folder are not on the same drive.

4. Specify to either schedule it weekly or one time. Click ⊙ to make a selection.
5. Click on the blocks to set the schedule (see also Chapter 4.4.1). Or click **All** to select all. To store the setting, click **Save**. To remove the settings, click **Clear**.
6. To end Schedule Setting, click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.



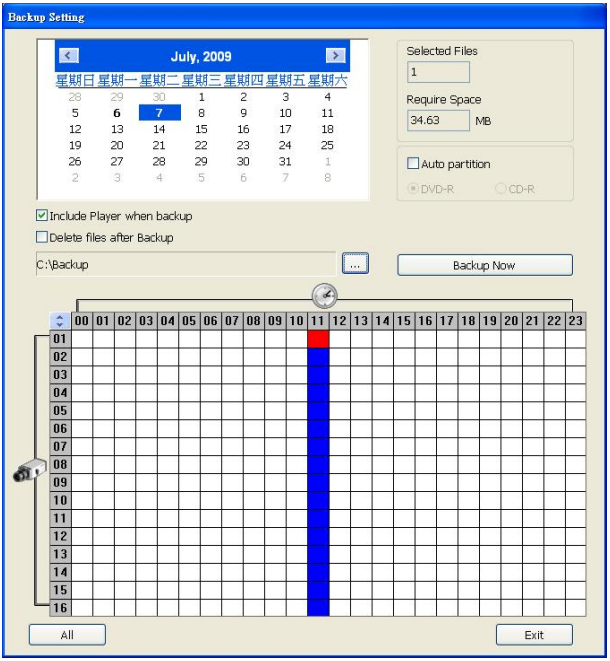
4.4.1 To set schedule at a specific portion of time in that hour:

1. **Right click** the colored blocks.
2. In the Select time dialog box, click to enable or disable the portion you want to set.
3. Click **OK** to accept the setting and **Cancel** to exit without saving the setting.

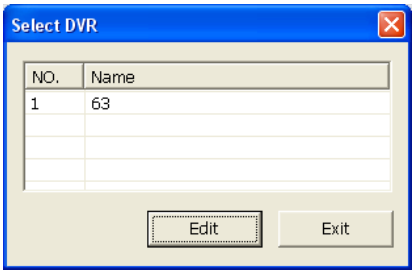


4.5 Backup Setup

In the Backup Setting dialog box, the number from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera number.



1. Select the DVR that wants to backup



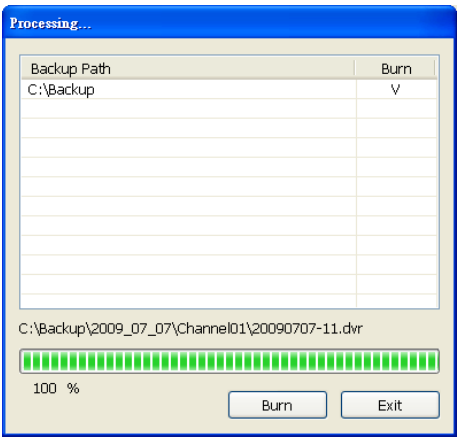
2. Select the date of the recorded file in the calendar you want to backup. Use ◄ and ► buttons to shift the calendar to the left or right.
3. In the table below, click on the blue block to select the recorded file or click camera (01~16) or time (00~23) to select the whole row or column. The blue block turns red when it is selected. The block that appears in white doesn't have data. If you want to set the specific time, right-click on the selected block. Then, set the time to start and end.
4. Check the information beside the calendar.

   Selected Files : Show the number of files selected.

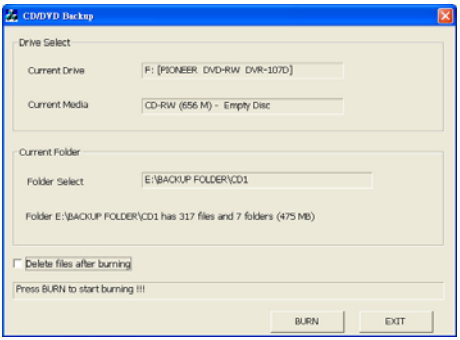
   Require Space : Show the total size of the selected file.

5. Enable **Auto partition** and select to divide the file size into DVD-R or CD-R. DVR automatically backup and divide the file sizes to facilitate burning into DVD or CD disc.

6. Enable **Include player when backup** that will included a **Qplayer** program for playback backup file in backup folder when backup. Only administrator user has the authority to enable or disable this function.
7. If you do **NOT** want to keep the recorded file in the storage folder, enable **Delete files after Backup** check box.
8. Click ... to set the path on where to store the backup file.
9. Click Backup Now to start archiving the selected file.
10. In the Processing… dialog box, to stop archiving press **Abort**. When done, in the Backup Path list, shows the archived item. To burn the file in CD, you need to have NERO 6 or above installed in your PC then select the item in the list and click **Burn**. Click **Exit** to end this procedure and burn it later.



11. In CD/DVD Backup, enable/disable Delete file after burning check box to remove the archived file after burning. Click **Burn** to start and **Exit** to cancel this process.

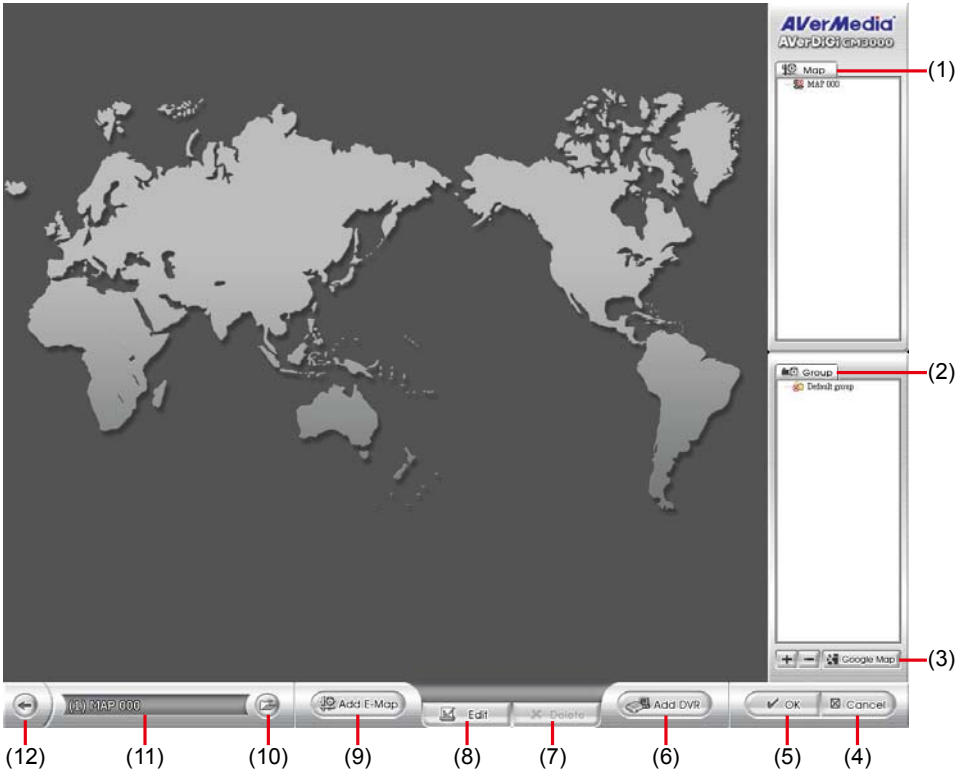


4.6 E-MAP Setup

Holds up to 64 maps in *.bmp/*.jpg format. The map is hierarchy in structure and users can add a map on another map. User also may add the DVR icons on the map.

4.6.1 To Set Up the E-Map

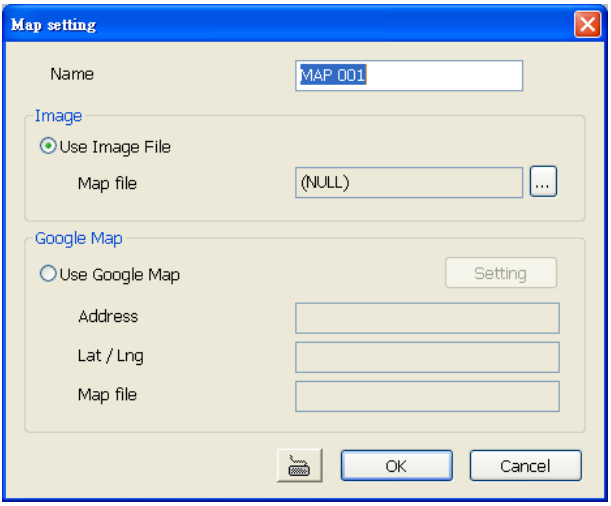
1. Click **Setup**.
2. In the Authorization dialog box, enter the administrator User ID and Password.
3. Click **E-Map**.
4. The E-Map interface will show up in assigned monitor if user is using multiple monitors for the CMS system. If user is using single monitor for the CMS application, the E-Map interface will show up in front of the CMS application interface. Press **Esc** or click **Center** button to switch back to CMS application interface or press **F3** to switch to E-Map interface again.
5. On the E-Map interface:
   - **(1) Map List:** list all E-Map and all DVR servers that have been added on the E-Map.
   - **(2) Group List:** User can create the group to group DVR servers for easy management. Click to add new group. Drag the DVR server from **Map List** window into the group. To delete the group, click . Double-click on the DVR server will call out the **DVR Watch** window(see also Chapter 4.6.1.3)
   - **(3) Google Map:** Click **Google Map** to use Google map function to find the location map that user wanted and saves as an E-Map (see also Chapter 4.6.1.1). To enable the Google map function, please refer to **Google API Key** at Chapter 4.1.
   - **(4) Cancel:** Without saving the setting and exit the E-Map interface.
   - **(5) OK:** To save the setting and exit the E-Map interface.
   - **(6) Add DVR:** Add a DVR server icon on the map. (see also Chapter 4.6.1.2)
   - **(7) Delete:** To remove the DVR server
   - **(8) Edit:** To modify the selected DVR server
   - **(9) Add E-Map:** Add a new map. The new map is added on the current map as a next level. (see also Chapter 4.6.1.1)
   - **(10)** Load a map to replace the current map
   - **(11)** Show the current name and layer of map
   - **(12)** go back to previous layer of map



Right-click on Emap could call out a short-cut menu.

4.6.1.1 Add a New Map

1. Click button
2. In the Authorization dialog box, enter the administrator User ID and Password
3. Click **E-Map** button
4. In E-Map interface, click **Setup** >> **Add Map** button and the **Map setting** window will show up.



5. Give a name for the new map.
6. Select **Use Image File** or **Use Google Map**.

■ **Use Image File**

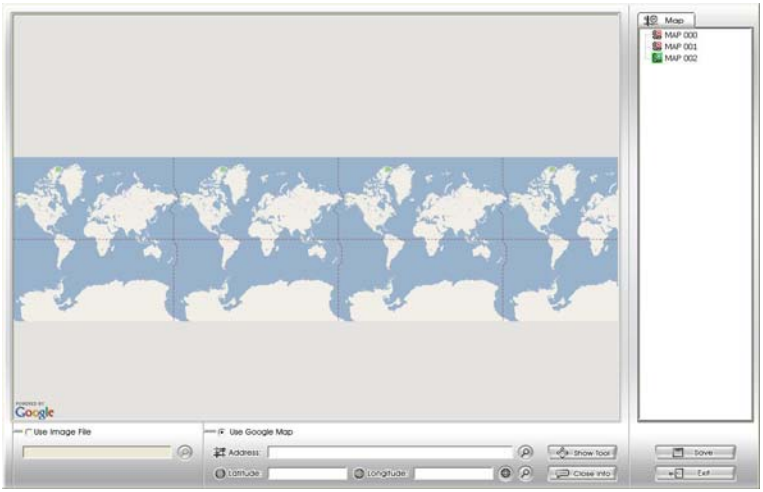
1. Click ... to locate the map file. In the open dialog box, locate and select the map and click **Open**
2. User may now drag and move the Map icon to its place on the map.
3. User can double click the Map icon to view the map.
4. To edit and delete the map, click the map icon and **Edit** and **Delete** button will appear on the Map interface. Click **Edit** to modify the map. To delete the map, click the map icon and click **Delete** button.
5. Click **OK** to accept the new setting and **Cancel** to exit without saving the new setting.

- User can add up to a total of 64 maps
- User can right-click on the map to call out a short-cut menu.

■ Use Google Map

The Google map function only supported in CM3000 Gold version.

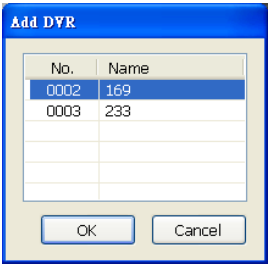
1. Click **Setting** and New map window will show up.



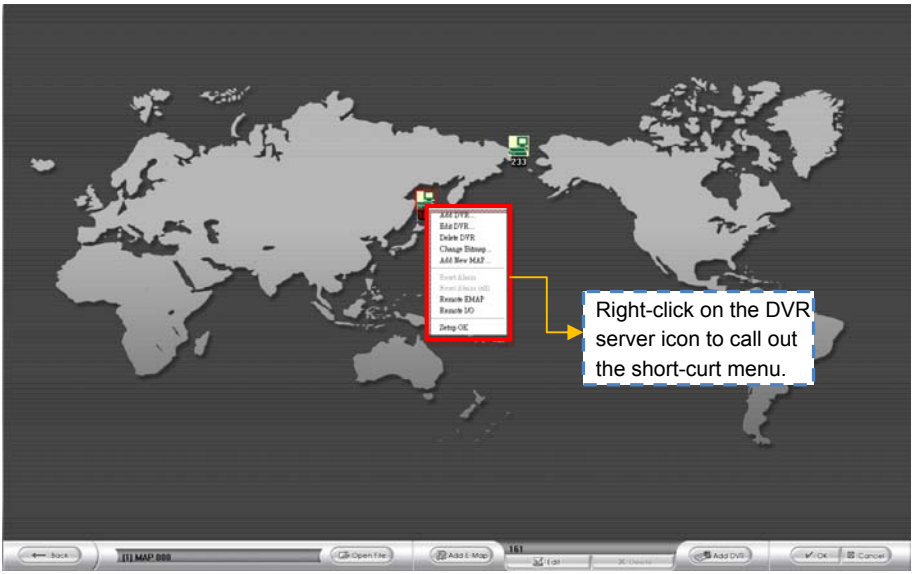
2. Select **Use Google Map**.
3. Right-click MAP in Map list can re-name the map.
4. User can enter the **Address** to find the map of the location.
5. Also, user can enter **Latitude** and **Longitude** to find the map of the location.
6. When the map of location has been found, click **Save** to save the map.
7. To exit, click **Exit**.

4.6.1.2 Add a DVR Server

1. Click button
2. In the Authorization dialog box, enter the administrator User ID and Password
3. Click **E-Map** button
4. Click **Add DVR** button and the Add DVR window will show up.
5. Select the DVR server from the Add DVR window and click OK.



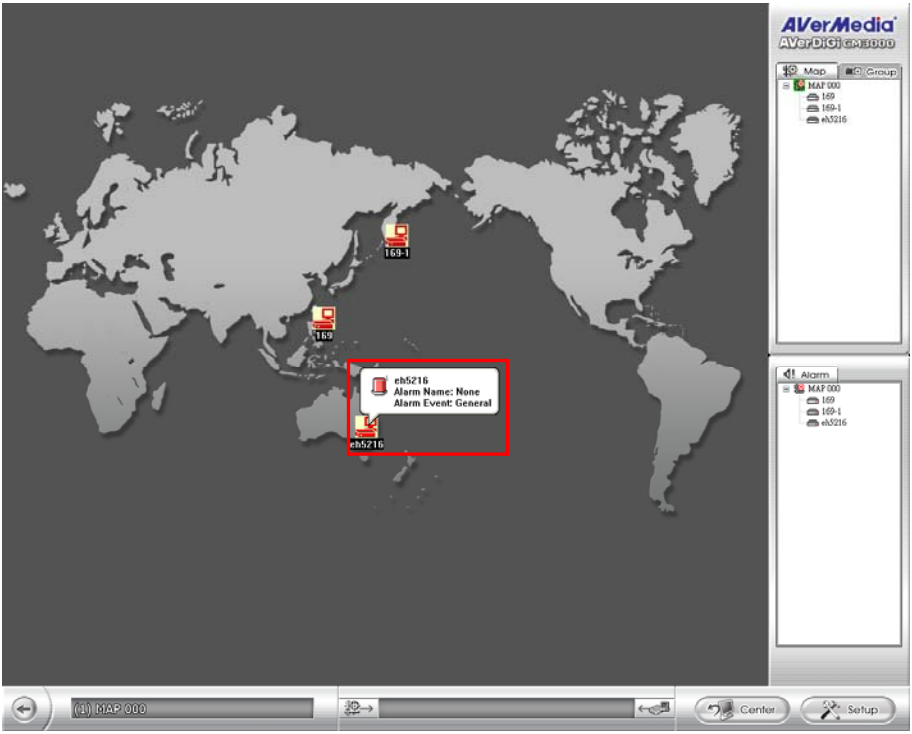
6. User may now drag and move the DVR icon to its place on the map.
7. To edit and delete the DVR server on the map, click the DVR server icon and the **Edit** and **Delete** buttons will appear on the Map interface. Click **Edit** to modify the DVR server (see 4.2.1 # 5~10). To delete the DVR server from the map, click the DVR server icon and click **Delete**.
8. Click **OK** to accept the new setting and **Cancel** to exit without saving the new setting.



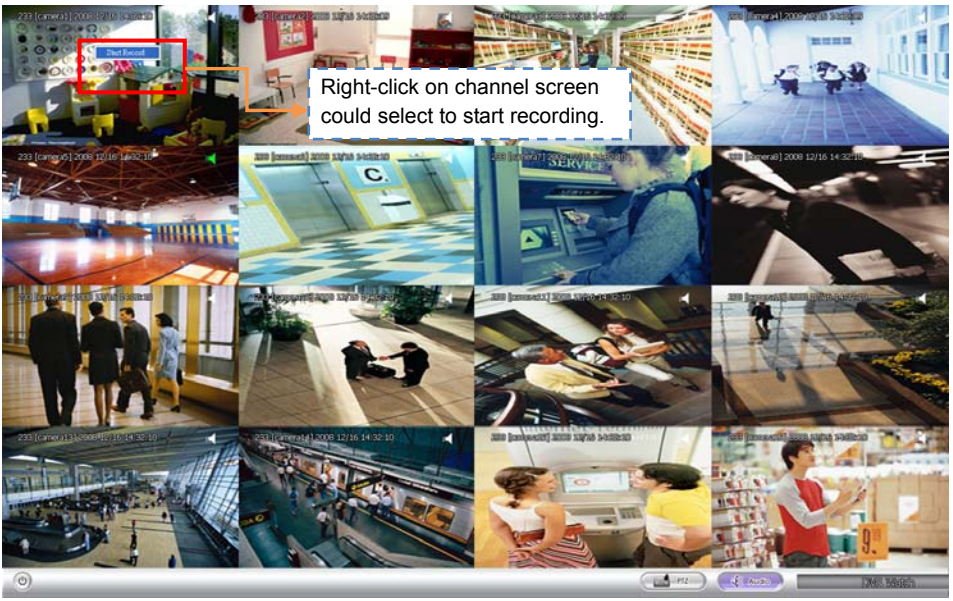
4.6.1.3 To Use the E-Map

When the alarm has been activated, the DVR icon blinks and turns red.

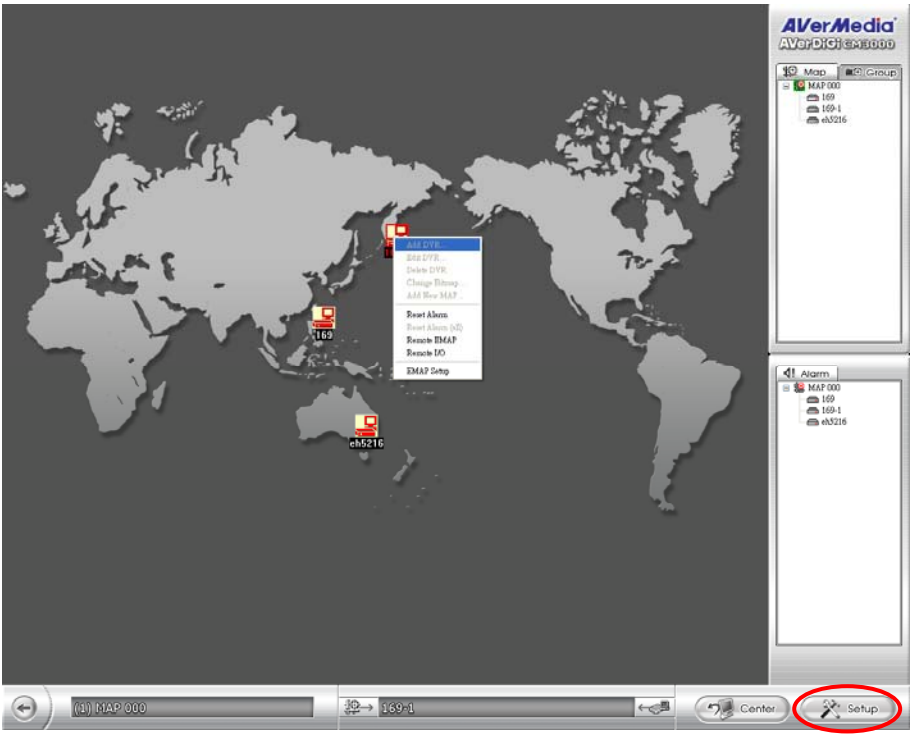
1. On the CMS main application, click **E-map** or press **F3**.
2. When the DVR server has an alarm occurred, use the mouse to point on the DVR server icon and the alarm information will show up.



3. Click the DVR server icon and a **DVR watch** window will show up and connect the DVR server to play the live video.
4. In DVR watch UI, user can call out PTZ control panel if the PTZ camera is available. Also, user can enable/disable the audio, but only one channel at a time can play the audio. The green audio icon indicates that the channel is playing audio now.



5. To stop the DVR server icon from blinking, right-click and select **Reset Alarm** or **Reset Alarm (all**). The DVR server icon will stop blinking.
6. To switch back to the main application, press **ESC**.



7. To setup the E-Map, click button or right click the mouse button and select **E-Map setup** and the E-Map interface will switch to the E-Map setup mode. (see also Chapter 4.6.1)

- If user uses dual monitor, the E-map setup mode is active in E-Map window and the E-map setup mode will not activate in CMS main screen.
- Click **OK** or **Cancel** to exit the setup mode in E-Map interface.

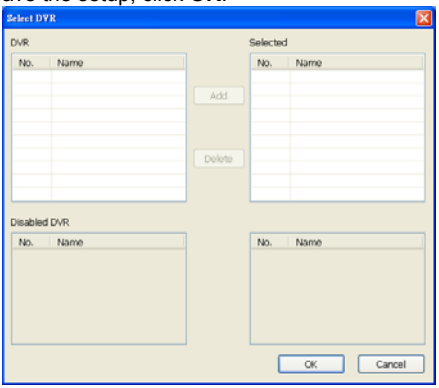
8. User can click the Map icon on the map to view the map. And the map can be added level by level up to 64 maps. (see also Chapter 4.6.1.3).

4.7 Alarm Setting

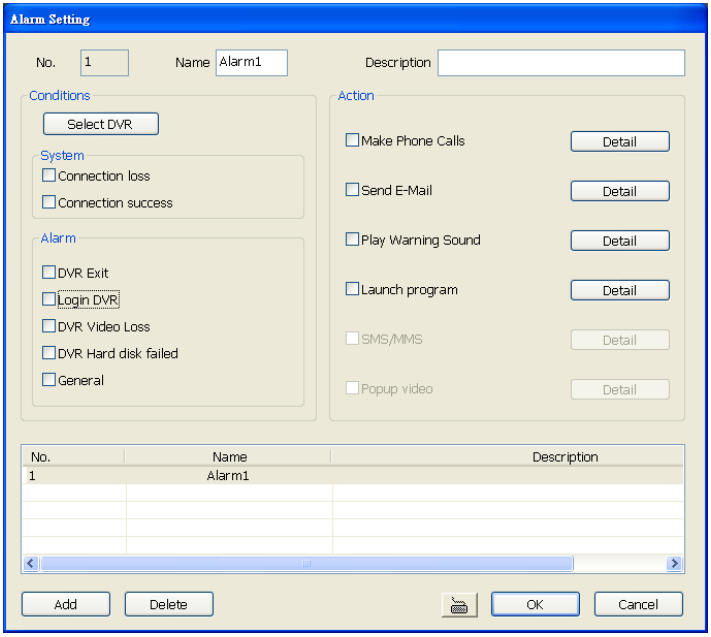
In the **Alarm Setting** dialog box, just select and enable the condition for the system to alarm and the action for the system to perform when an alarm is activated. User can setup a total of 16 different combinations of alarm settings. Each alarm setting can apply to several DVR servers. Click **OK** to accept new setting and **Cancel** to exit without saving.

4.7.1 To setup an alarm condition

1. Click the **Add** button to add a new alarm condition.
2. Give the name of this alarm condition.
3. Fill the simply description of this alarm condition in **Description** column.
4. Apply to the DVR server, click **Select DVR**. In Select DVR window, select the DVR server and click **Add**. To exit and save the setup, click **OK**.



5. Select the **Conditions**.
6. Select the **Action**.(see 4.6.2.1 & 4.6.2.2 & 4.6.2.3 & 4.6.2.4 & 4.6.2.5 & 4.6.2.6)



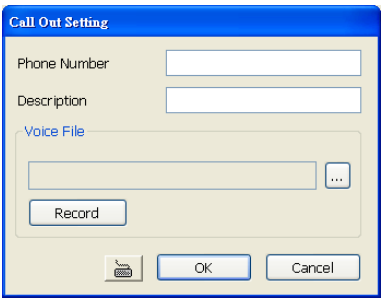
7. Click **OK** to save the setting. To cancel click **Cancel**.

4.7.1.1 To Setup the Call Out List

To use this feature, the PC must have a voice modem connected to it. The supported audio system is only 8KHz and 16Bit mono.

1. Beside the Make Phone Calls check box, click **Detail**.
2. In the Call Out List, click Add to insert a new contact number, Modify to edit the selected item, Remove to delete the selected item, Test to check if it is working.

3. In the Call Out Setting, enter the phone number and description. Click ... to select existing recorded sound and click **Record** to make a new voice message.

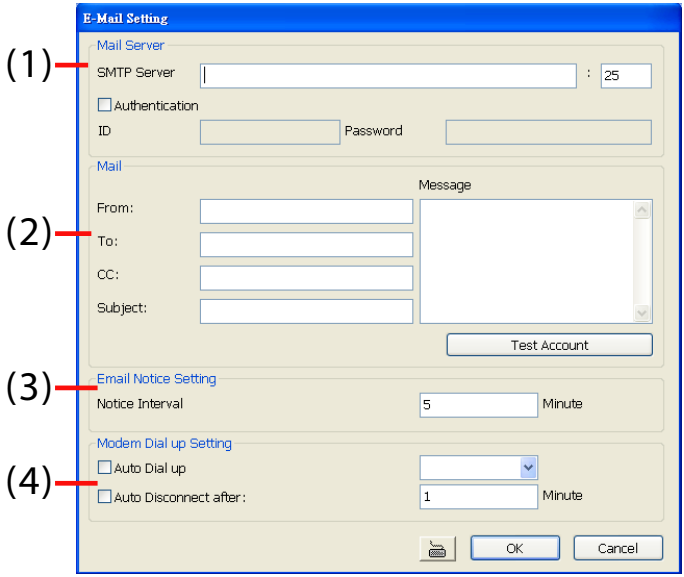


4. When the Sound Recorder appears, use the record control panel to record, stop, play, rewind and forward. If you want to keep the existing file, click **File** > **Save As**…, enter filename and click Save. Make sure you have microphone connected to your PC.
5. Click **OK** to exit and accept the setting and click **Cancel** to exit without saving the setting.

To use make phone call function, please make sure you deselect the option "**wait for dial tone before dialing**" in modem properties in control panel of your Windows OS.

4.7.1.2 To Setup the Send E-Mail Setting

Beside the Send Email check box, click Detail. In the E-mail Setting dialog box, click OK to exit and save the setting and Cancel to exit without saving the setting.



(1)Mail Server

Enter the SMTP Server and port. If your e-mail system requires user identification, enable the **Authentication** check box and enter User ID and Password.

(2)Mail

To check if it is working, click the Test Account button.

From: Enter the sender e-mail address.

To and CC: Enter the recipient email address and separate it with comma or a semicolon (;).

Subject: Enter the message title.

Message: Type the message.

(3)Email Notice Setting

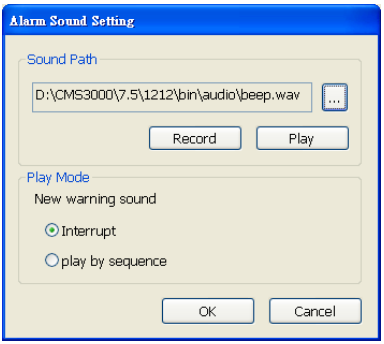
In the Notice Interval text box, set the period of time before it sends another e-mail notice.

(4)Modem Dial up Setting

If you are using dial up modem, enable Auto Dial up check box and select the modem name. You may also set the time to disconnect automatically, just enable the Auto Disconnect after check box and set the time.

4.7.1.3 To Setup the Alarm Sound Setting

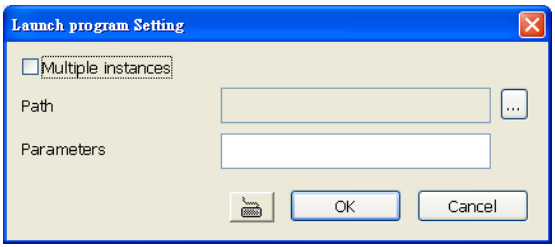
1. Beside the Play Warning Sound check box, click **Detail**.



2. In the Alarm Sound Setting dialog box, click ... to select other wav file from other source or folder, **Play** to listen, **Record** to make a new copy of a sound.
3. Select the **Play Mode**.
   - ✓ **Interrupt:** when receive the new alarm warming, immediately play new warming sound.
   - ✓ **Play by sequence:** when receive the new alarm warming, play after the on playing alarm warming.
4. If you click **Record**, you will be prompted if you want to replace the file. Click **OK** to continue and **Cancel** to discontinue.
5. When the Sound Recorder appears, use the record control panel to record, stop, play, rewind and forward. If you want to keep the existing file, click **File** > **Save As…**, enter filename and click **Save**. Make sure you have microphone connected to your PC.
6. Click **OK** to exit and accept the setting and **Cancel** to exit without saving the setting.

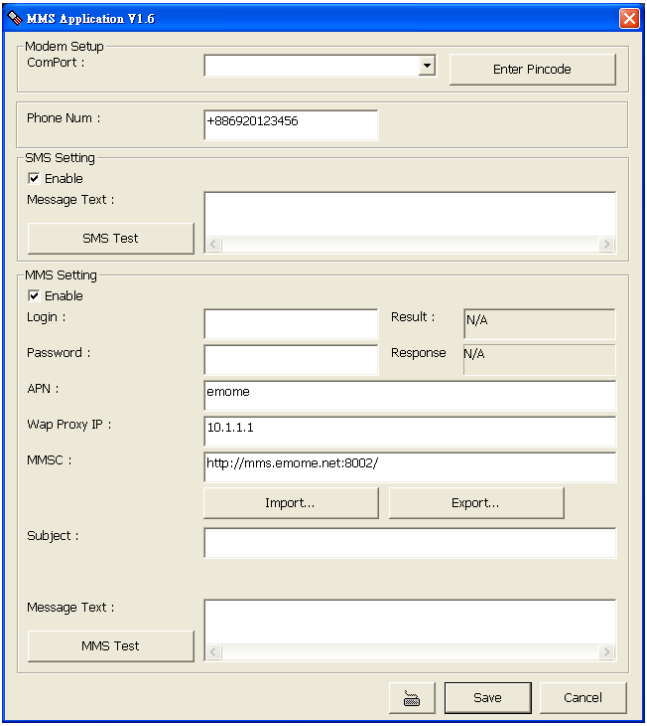
4.7.1.4 Launch program

To call up the external program that is provided by a 3rd party. Click Detail and click ... to locate the program path. Enable the **Multiple instance** check box if the external application has been programmed to execute repeatedly.



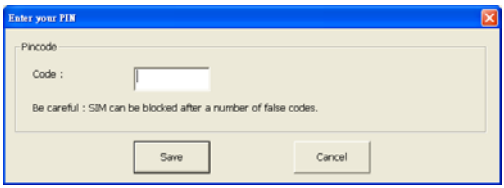
4.7.1.5 To Set the MMS/SMS Setting

To use this feature, GSM/GPRS modem is required. Connect the GSM/GPRS modem to the serial COMM port of PC. Beside the SMS/MMS check box, click **Detail**.



1. Select the port number in **ComPort** drop down list from where the GSM/GPRS modem is connected.
2. Click **Enter Pincode** button to fill in pin code of your mobile phone if your mobile system require verifying pin code for SMS/MMS sending.

The incorrect pin code will lock your mobile phone.



3. In **Phone Num** text box, enter the contact number.
4. You may now set to send thru SMS &/or MMS. If you enable **SMS setting**, just enter the message in the **Message Text** box. Click **SMS Test** to verify the SMS setup is available.
5. If you enable MMS, enter the Loing account, Password, APN name, WAP IP, MMS address, subject of MMS message and the message. User can **Import** the previous MMS setting or **Export** the current MMS setting. If you are not sure, please contact your mobile service provider. To verify the setting, click **MMS Test**.
6. Click **OK** to accept the new settings and **Cance**l to exit without saving.

4.7.1.6 Popup Video

The Popup video will co-work with alarm condition of **Receive Alarm**. When user selects the alarm condition of Receive Alarm, and then the action of Popup video will be un-gray and available for select. The popup video will show up 4 windows at once. To setup Popup video, please see To Setup Popup Video.

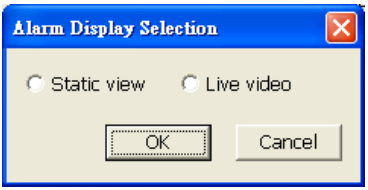
On the upper right corner of popup video window, there two figures that are to represent nailed popup video window and mini center function.

(a) To call out DVR watch window. The DVR watch window will display the DVR all channels' video image.

(b) To nail popup video window for avoiding new coming alarm video to replace it.
(c) To call out MiniCenter(also see Chapter 3.3)

To Setup Popup Video:

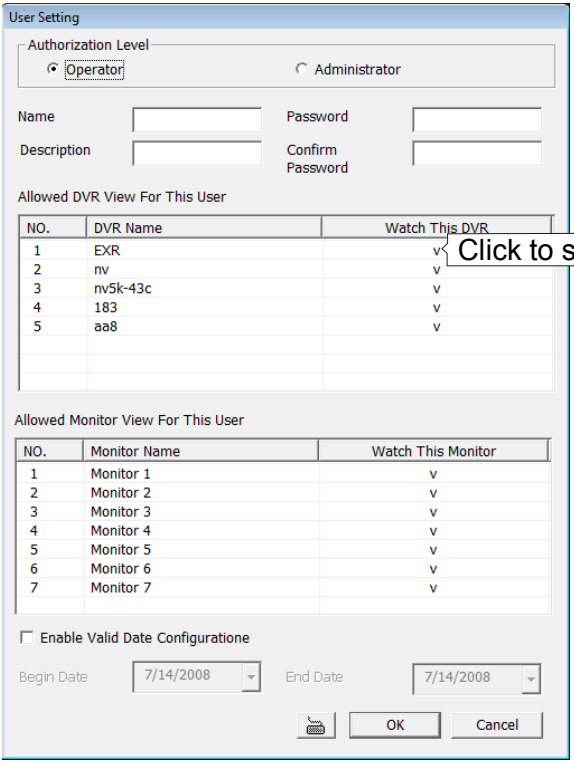
1. In Alarm setting window, Click **Detail** of popup video.
2. Select the type of popup video
   - **Static View:** The DVR server only transmits one frame of video and popup on CMS site.
   - **Live View:** The DVR server will continue to transmit video to CMS site while popup video window is open.
3. To close popup video window, just click "**X**" of window.



4.8 User Setting

CMS supports 256 user account that includes operator and administrator account.

1. Select the Authorization Level – **Operator** or **Administrator**. User can define each operator/administrator account's authority of DVR server and Monitor set. **Only the administrator is authorized to close and customize the CMS system**.
2. Enter the **Name**, **Description**, **Password**, and **Confirm password** of the account.
3. Select the DVR servers that allow this account user to preview and playback. The DVR server with check mark means is selected.
4. Select the Monitor set that allow this account user to view. The Monitor set with check mark means is selected.
5. User can assign a valid date for Operator user. Select **Being Date** and **End Date** to assign a valid date for operator account. **The account only will be available during the assigned date.**
6. Click **OK** to accept the new settings and **Cancel** to exit without saving.

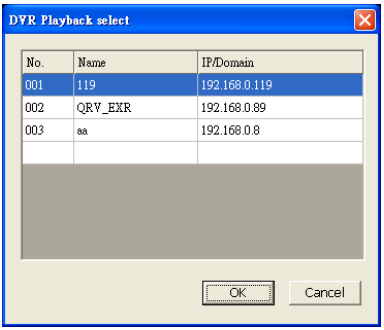


Chapter 5 Using the Playback Function

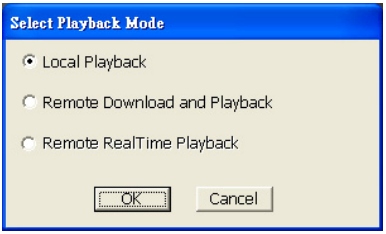
User can choose to playback video stored on the local hard disk or download the video from the remote side of the DVR server.

5.1 To Playback the video

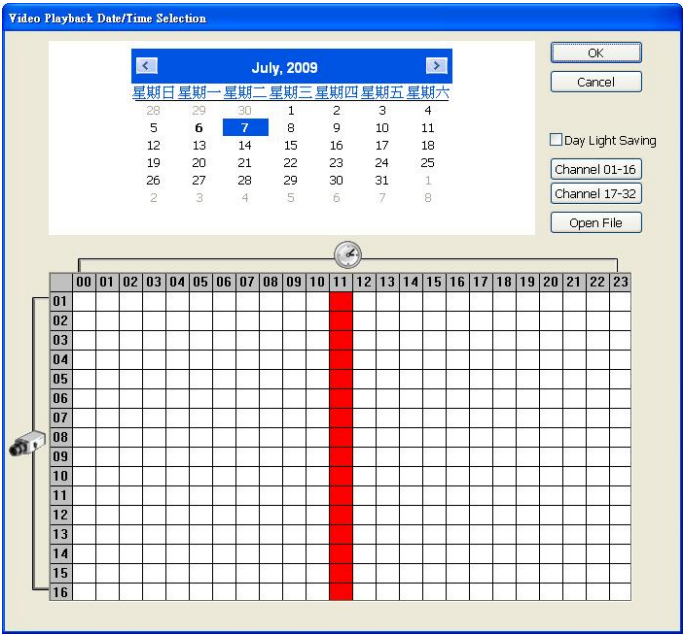
1. Click
2. In the **DVR Playback select** window, select DVR server to play video from the remote DVR server.



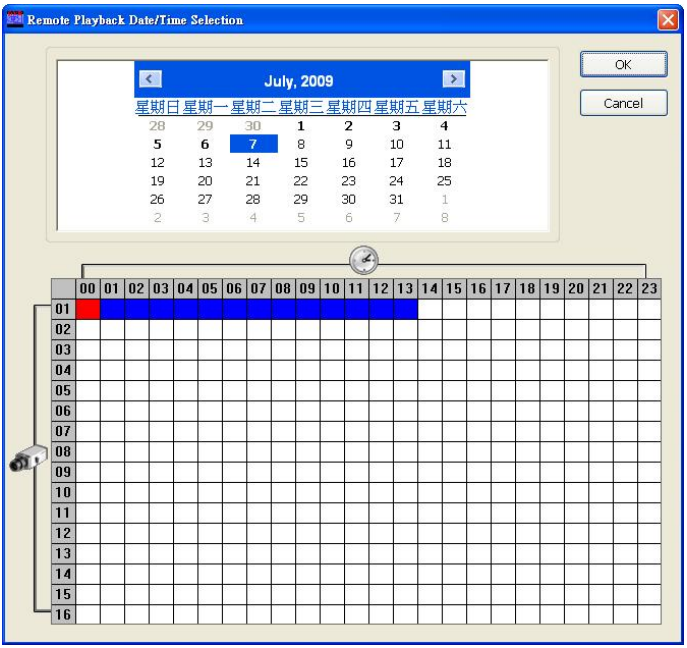
3. You can select Local Playback, Download and playback or RealTime playback. Click **OK** to proceed and **Cancel** to void this operation.



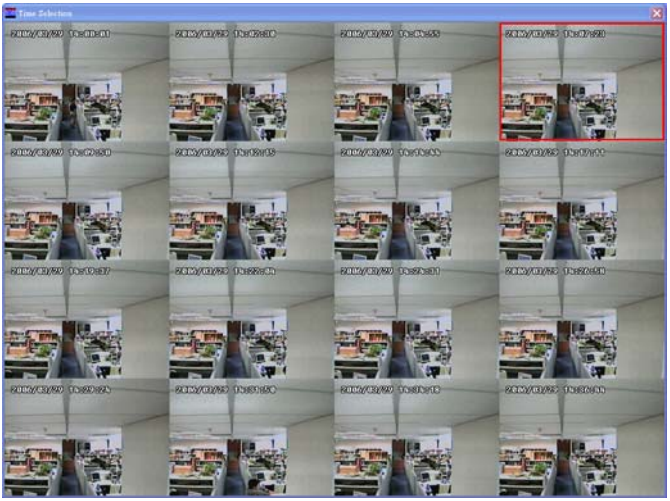
4. For Local Playback, user can select to preview 16 channels at a time. Only the cameras previously selected in **Monitor** and with the **Record** enabled can be playback. In the Video Playback Date/Time Selection, the numbers from 00 to 23 represent the time in 24-hour. The numbers from 01 to 16 represent the camera number. The blue block indicates that there is a recorded video file in that period of time. While the red bar indicates the selected recorded video for viewing (see also 5.2 Using the Local Playback Application).



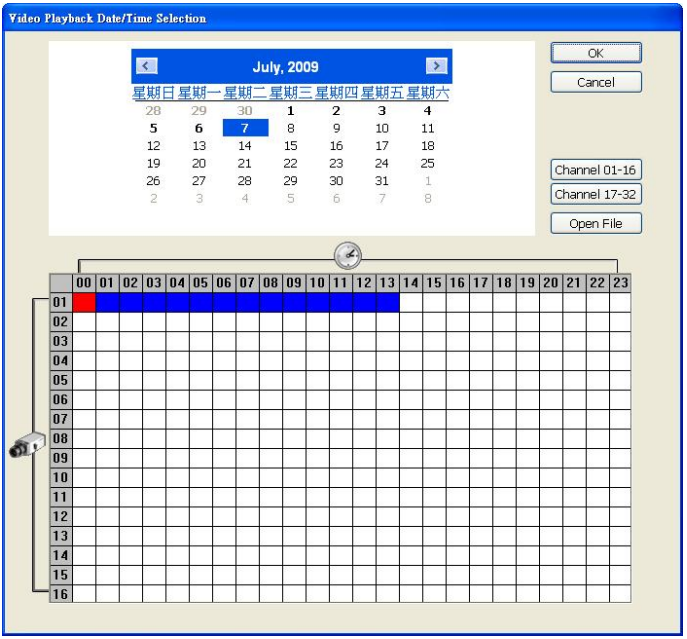
5. For Download and Playback, the numbers from 00 to 23 represent the time in 24-hour in the Remote Playback Date/Time Selection window. The numbers from 01 to 16 represent the camera number. The blue block indicates that there is a recorded video file on that period of time. While the red block indicates the selected recorded video for viewing.



6. In the Time Selection screen, click on the video thumbnail you want to download and open (see also 5.3 Using the Download and Playback Application).



7. For RealTime Playback, the number from 00 to 23 represent the time in 24-hour clock in the Video Playback Date/Time Selection window. The numbers from 01 to 16 represent the camera number.(see 5.4 Using the RealTime Playabck Application)

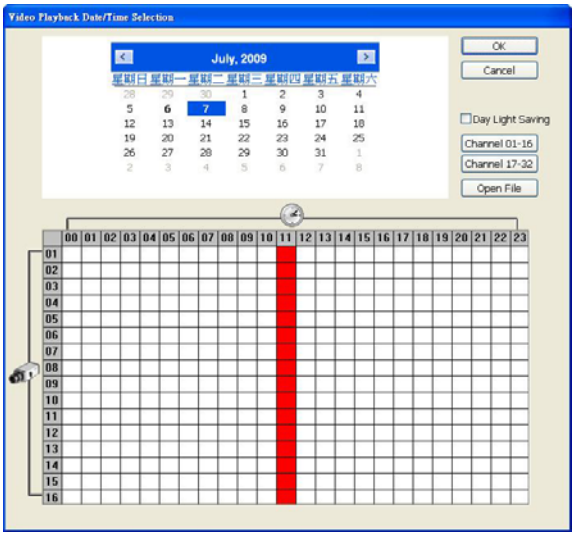


5.2 Using the Local Playback Application

Name	Function
(1) Split Screen Mode	Select from six (6) different split screen types to playback the recorded video file of all the cameras, or one camera over the other or alongside on a single screen.

- If there are only 4 cameras, you won't be able to switch to 9, 16, and 13 split screen mode.
- To zoom into an area on the screen, **Right** click and **Drag** a square on the area you want to enlarge.
- To view 32 channels, click 16 split screen mode button to view 16 channels each time. Check the camera ID icon to know which channels are displaying now.

(2) Exit	Close the Player.
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.
(5) Playback Control Buttons	**Begin:** Move to the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, or 1/8x. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, or 8x, 16x, 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.

Name	Function
(6) Archive	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. – Also, user can open the recorded file from certain location by click **OPEN FILE** button – Click **Channel 01~ 16** and **Channel 17 ~ 32** button to switch to different channel group of playback calendar. – Mark **Day Light Saving**, the playback calendar will show the available playback records during day light saving period. 

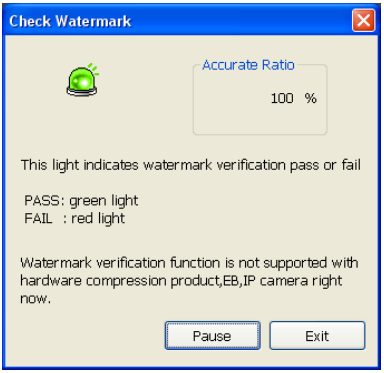
The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.

(7) Status bar	Display the recorded date, time and play speed.
(8) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(9) Export	Export includes Snapshot, Print, and Output Video Clip function. ■ **Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format. ■ **Print:** Print the screen shot. ■ **Output Video Clip:** Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 5.5).
(10) Segment	Keep a portion of the recorded video you want (see also Chapter 5.5).
(11) Full screen	View in Playback-compact mode. To return, **Right** click the mouse or press **ESC** on the keyboard. When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.
(12) Bookmark	Mark a reference point when previewing the recorded video file to which you may return for later reference. You may also set it to protect the file. (See also Chapter 5.6)

Name	Function
(13) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second (See also Chapter 5.7).
(14) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search only.
(15) Event Search	Search from the recorded activities that take place in the system (i.e., Sensor, Motion, Video Loss, POS) (See also Chapter 5.8).
(16) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 5.9).
(17) Audio	Enable/disable audio and adjust volume
(18) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

5.3 Using the Download and Playback Application

Name	Function
(1) Exit	Close the player
(2) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(3) Playback Control Buttons	**Begin:** Move to the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, or 1/8x. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, 8x, 16x or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.
(4) Language	To switch the application tips' display language
(5) Export	Export includes Snapshot, Print, and Output Video Clip function. ■ Snapshot: Capture and save the screen shot either in *.jpg or *.bmp format. ■ Print: Print the screen shot. ■ Output Video Clip: Save the segmented file in *.mpg, *.avi, or *.dvr format (see also Chapter 5.5).
(6) Segment	Keep a portion of the recorded video you want. You may follow the instruction in Chapter 5.5.
(7) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or ESC on the keyboard. When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.

Name	Function
(8) Visual Search	Search from a specific camera by Date, Hour, Minute, 10 Seconds and Second. (See also Chapter 5.7)
(9) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.
(10) Event Search	Search from the recorded activities that take place in the system (i.e., Sensor, Motion, Video Loss, POS) (See also Chapter 5.8).
(11) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 5.9).
(12) Audio	Enable/disable audio and adjust volume
(13) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.
(14) Watermark	To verify the playback video has not been modified. Click to check the video. Watermark verification window will show up as following:  Watermark verification doesn't support on EB series DVR and the video that is recorded from IP camera.

5.4 Using the RealTime Playback Application

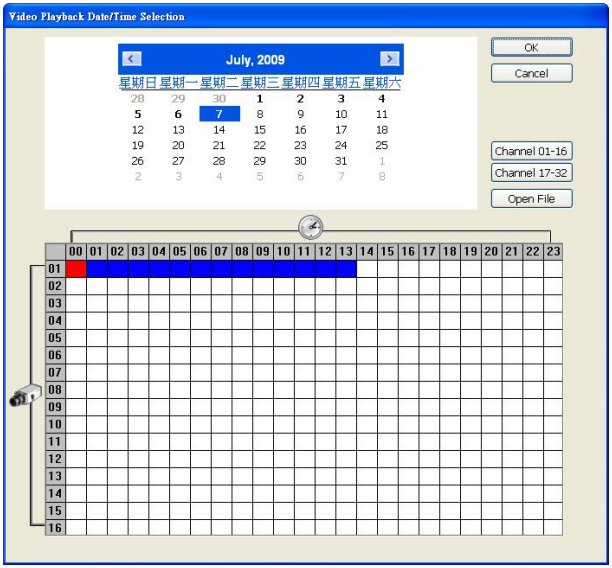
Name	Function
(1) Split Screen Mode	Select from 6 different split screen type to playback the recorded video file of all the camera, or one camera.

- If there are only 4 cameras, you won't be able to switch to 9, 16, and 13 split screen mode.
- To zoom in an area on the screen, **Right** click and **Drag** a square on the area you want to enlarge.

(2) Exit	Close the player
(3) Progress bar	Show the progress of the file being played. You may move the bar to seek at any location of the track.
(4) Hour Buttons	Select and click to playback the recorded video file on the specific time frame.

The Hour buttons represent the time in 24-hour clock. The blue bar on top of the hour button indicates that there is a recorded video file on that period of time. While the red bar indicates that you are currently viewing the recorded video file.

(5) Playback Control Buttons	**Begin:** Move at the beginning of the recorded video file. **Previous:** Go back to the previous frame. **Slower:** Play the recorded video file at the speed of 1/2x, 1/4x, or 1/8x. **Rewind:** Wind back the recorded video file. **Pause:** Briefly stop playing the recorded video file. **Play:** Play the recorded video file. **Faster:** Play the recorded video file at the speed of 2x, 4x, or 8x, 16x or 32x. **Next:** Go to the next frame. **End:** Go to the end of the recorded video file.

Name	Function
(6) Archive	Select the date on the calendar and the time from 00 to 23 to where to start playing the recorded video file. – Also, user can open the recorded file from certain location by click **OPEN FILE** button – Click **Channel 01~ 16** and **Channel 17 ~ 32** button to switch to different channel group of playback calendar. 

The numbers from 00 to 23 represent the time in 24-hour clock. The numbers from 01 to 16 represent the camera ID. The blue colored column indicates that there is a recorded video file on that period of time. While the red colored column indicates on where to start playing the recorded video file.

(7) Status bar	Display the recorded date, time and play speed.
(8) Camera ID	Show the number of cameras that are being viewed. When you are in single screen mode, click the camera ID number to switch and view other camera.
(9) Export	**Snapshot:** Capture and save the screen shot either in *.jpg or *.bmp format.
(10) Full screen	View in Playback-compact mode. To return, press the right button of the mouse or **ESC** on the keyboard. When you switch to full screen in multiple-screen mode, **Left** click to toggle to only display one of the video in the multiple-screen mode or all.
(11) Event Log	Show the record of activities that take place in the system. To filter the records, select and click the option button to only display Event, System, Operation, Network or POS.
(12) Find Next	Search for the next event or changes in the motion detector frame. You can use this when you are using Intelligent Search or Event Search function.
(13) Intelligent Search	Search the changes in the motion detector frame (See also Chapter 5.9).
(14) Audio	Enable/disable audio and adjust volume

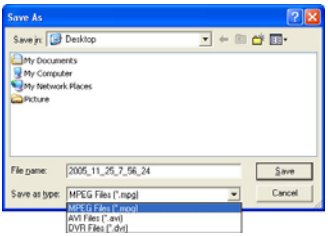
Name	Function
(15) De-interlace	To enhance the video quality. Set the de-interlace mode to #1, if you are capturing motionless picture and #2, if it captures lots of movement.

5.5 To Cut and Save the Wanted Portion of the Recorded Video

1. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to start the cut. Then, click **Segment** to set the begin mark.

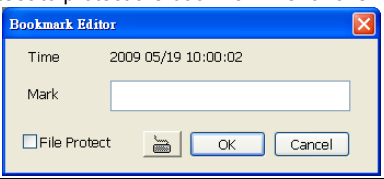
2. Use the Playback Control buttons or drag the bar on the playback progress bar and pause on where you want to end the cut. Then, click **Segment** to set the end mark. To cancel segmentation or set the segment marks from the start, click **Segment** button again.

3. Click **Output** button to save the wanted clip.
4. In the Save As dialog box, locate on where you want to save the file, type the filename, and select the video format.



5.6 To Bookmark a Section of the Video

1. Click **Bookmark**. The video playback stops when the bookmark button is executed.
2. In the Bookmark dialog box, you may do the following:
   - **Add** to include the new reference mark in the bookmark list. You may select to enable/disable **File Protect** to protect the bookmark file for overwritten.

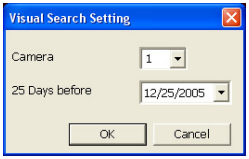


- When the bookmark is protected, the file won't be overwritten.
- The protected bookmark file will be deleted when the **Delete the recorded data** is enable in the **Backup setting**.(also refer to Chapter 4.5)

   - **Edit** to change the mark description or enable/disable file protection.
   - **Delete** to remove the selected reference mark in the list.
   - **Delete All** to remove all the reference marks in the list.
   - **Exit** to close Bookmark dialog box.
3. Select and click one in the bookmark list to preview the file.

5.7 To Search Using the Visual Search

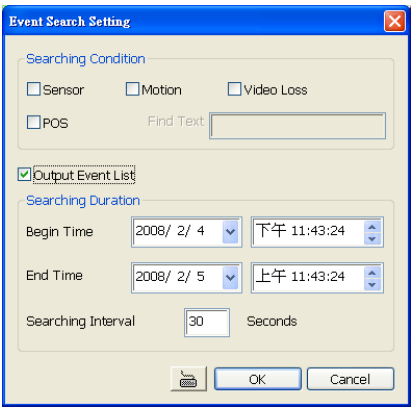
1. Click **Visual Search**.
2. In the Visual Search Setting dialog box, select the Camera number and the date. Then click **OK**.



3. When a series of frames appear by date, click on the frame to display another series of frames and search by every Hour of that date, every Minute of that hour, every 10 Seconds of that minute, every Second of that 10 seconds. To go back, click . To view from the selected frame and close event search, click .

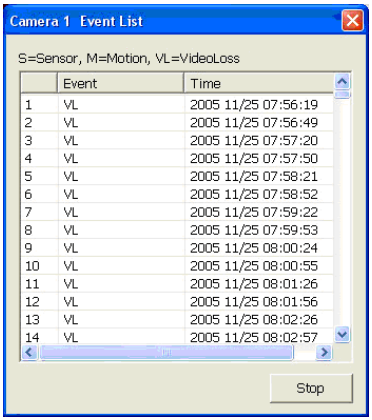
5.8 To Search Using the Event Search

1. Click on the video screen on where you want to search.
2. Click **Event Search**. The ***Event Search*** text (red) would appear at the lower left corner of the screen.



3. In the **Event Search Setting** dialog box, check the type of condition you want to search. If you select POS, in the Find Text box, type the word. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching, click .

4. You may also set to search and list all the result. Just check the **Output Event List** box. In the Search Duration section, set the **Begin Time**, **End Time** and **Searching Interval**. Then, click **OK** to start searching.
5. When the Event list appears, click and select the item you want to view.



5.9 To Search Using the Intelligent Search

1. Click on the video screen on where you want to search.
2. Click **Intelligent Search**. The ***Intelligent Search*** text (red) would appear at the lower left corner of the screen.
3. When the Intelligent Search Setting dialog box and motion detector frame appear, you may adjust the sensitivity bar and the motion detector frame size and location. To set motion detector frame size and location, left click and drag on the screen. Then, click **OK** to start searching. The video search would stop at the frame that matches the condition. To keep on searching, click Find Next.
4. You may also set to search and list all the result. Just check the **List** box. In the Search Duration section, set the **Begin Time**, **End Time** and **Searching Interval**. Then, click **OK** to start searching.

Intelligent Search in Local Playback Mode